



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

### Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

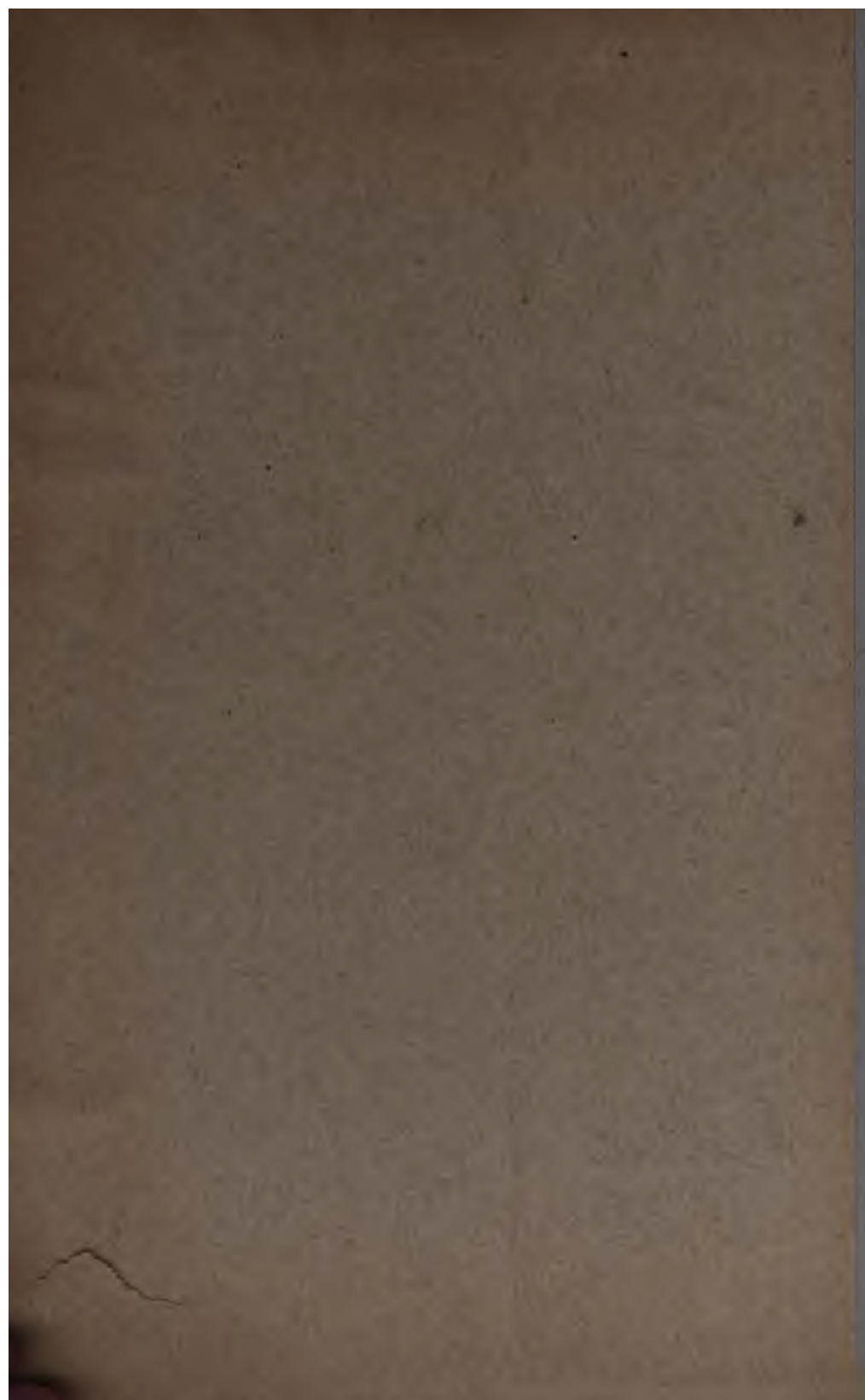
- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

### About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>



3 3433 06274035 6



Chicago  
Del. 1914





Chicago  
Feb. 1904



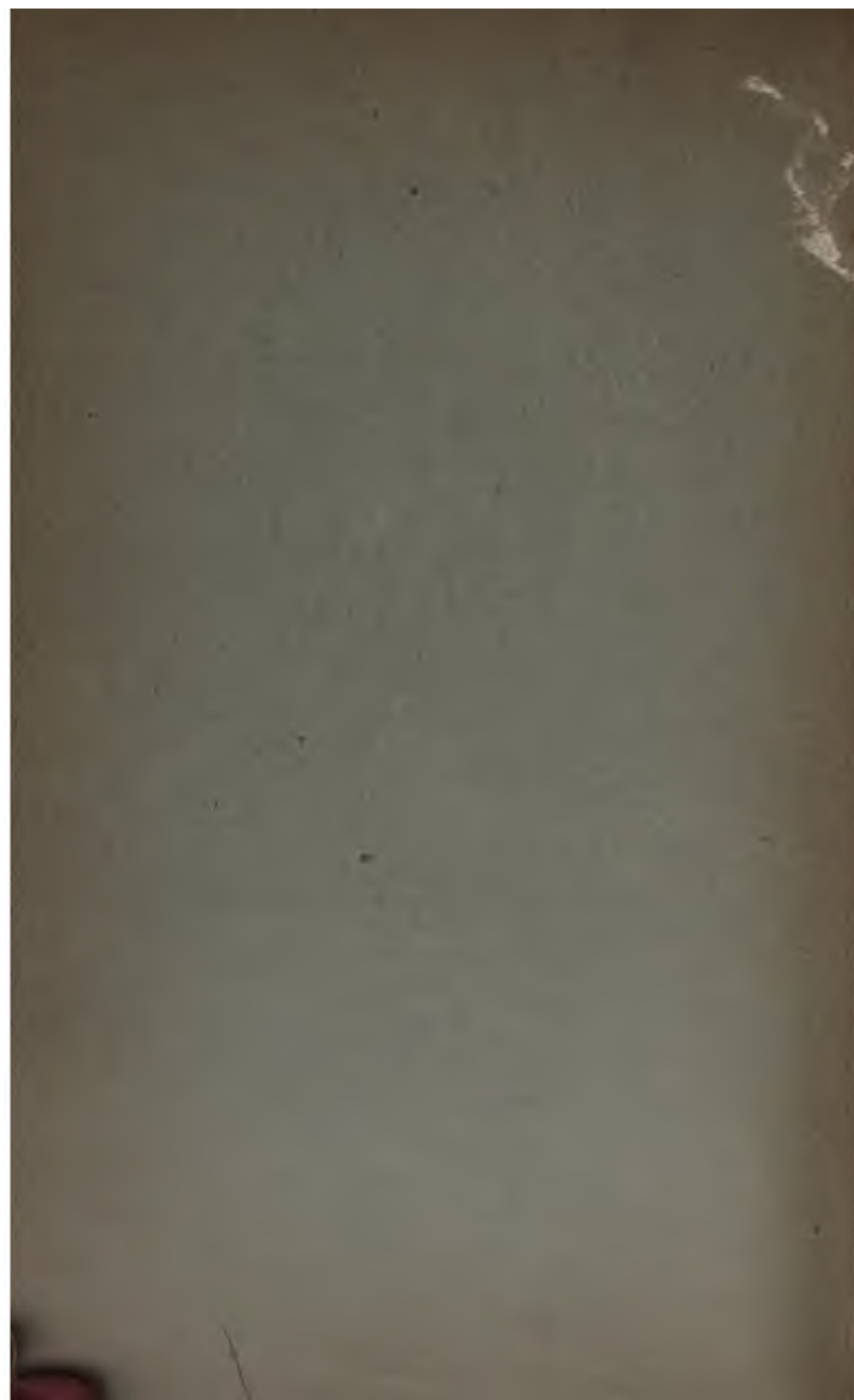
Chicago  
Ill.  
1890



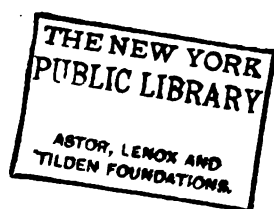
*B* *Act*

MAYOR'S ANNUAL MESSAGE  
AND THE  
TWENTIETH ANNUAL REPORT  
OF THE  
DEPARTMENT OF  
PUBLIC WORKS  
TO THE  
CITY COUNCIL OF THE CITY OF CHICAGO,  
FOR THE  
Fiscal Year Ending December 31,  
1895.

CHICAGO:  
CAMERON, ANSBURG & CO., PRINTERS AND STATIONERS.  
1896.









Yours truly  
Geo. P. Swift

MESSAGE OF  
MAYOR SWIFT



Presented to  
Geo. P. Swift

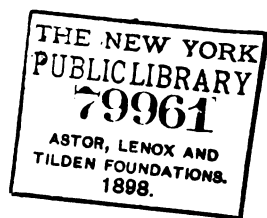
MAYOR'S ANNUAL MESSAGE  
AND THE  
TWENTIETH ANNUAL REPORT  
OF THE  
DEPARTMENT OF  
PUBLIC WORKS

TO THE  
CITY COUNCIL OF THE CITY OF CHICAGO,

FOR THE  
Fiscal Year Ending December 31,  
1895.

☆ POOR'S MAN RRS.

CHICAGO:  
CAMERON, AMBERG & CO., PRINTERS AND STATIONERS.  
1896.  
12



MESSAGE OF  
MAYOR SWIFT





# MAYOR'S ANNUAL MESSAGE.

---

*To the Honorable the City Council of the  
City of Chicago:*

GENTLEMEN—In accordance with the charter requirement, I submit to you some information and recommendations relative to City affairs. Necessarily only matters of seeming importance can receive attention, for the general subject is too vast for any detailed consideration here.

The past municipal year has been free from any extraordinary troubles or disturbances. Our main trouble has been oft-told, of trying to administer the government of a great city, with its ever expanding necessities, upon a narrow and inadequate income. Happily our citizens are showing an increasing interest in the financial embarrassments of the City as well as in the other municipal problems which affect us, and it seems reasonable to expect that some measure of relief will soon come. But the past year shows substantial results and progress. A civil service law, believed to be the best in existence, has been put into thorough and complete operation. The long pending dispute with the Illinois Central Railroad Company over the lake front has been finally settled, and in a form which promises to give to this City, at an early day, an attractive park near the heart of its business center. Provision has been made for the removal of many miles of railways from the surface of the streets, and the railway companies are manifesting a growing disposition to co-operate with the City in future elevation work. These are some of the events of the past year to which we may look back with satisfaction, both as citizens and as public officials.

## FINANCES.

That the City's revenues are insufficient for its needs is generally understood, but comparatively few people realize the extent of this deplorable insufficiency. At the present time our citizens are finding their taxes considerably increased and a large proportion of them do not understand that no part of this increase goes to the benefit of the municipal government proper. For the last five years, under the operation of the law limiting the amount of the tax levy, there has been no substantial change in the amount of the taxes levied by the City. The levy this year is about \$80,000 less than it was last year. On the other hand there has been a distinct increase in the taxes levied for the drainage canal, for the support of schools, and the maintenance of the park systems. In the meantime the necessities of the City have been increasing in every direction, thus making the disproportion between its revenues and its requirements gradually greater. It has been my determination that the floating indebtedness of the City should not be increased during my administration, and I mean to adhere to that determination if possible. The real credit of the City is good—perhaps too good, for it offers an opportunity to allow much expenditure in response to persistent public demands for which the public has not provided resources, thus incurring indebtedness which must sooner or later be paid. My adherence to the policy of living within the municipal income has brought sharply to the attention of our people the growing need for a larger municipal revenue, and the utter inability of the municipal government at the present time to perform the work required of it with the means at its disposal. In the present condition of things, without unlawfully running into debt, streets cannot be properly cleaned, pavements, bridges and viaducts and other public works cannot be properly maintained, and the police force must continue inadequate.



The total cash shortage on January 1st, 1895, was \$5,148,462.08, made up as follows:

## LIABILITIES.

Outstanding coupons .....	\$ 21,787 72	
Electric light and railway companies .....	31,000 00	
Interest account .....	486,743 99	
Judgments (appropriated for).....	583,613 35	
Judgments (not appropriated for).....	601,666 26	
Pension funds.....	328,280 81	
Sinking funds .....	723,166 87	
Special funds.....	373,171 56	
Taxes for street intersections.....	1,000,000 00	
Track elevation damages .....	100,000 00	
Unclaimed wages.....	4,209 48	
Accounts payable (miscellaneous).....	1,902,629 24	
Total debt January 1, 1895.....	\$ 6,156,269 28	
Less cash in treasury.....	1,674,807 20	
Actual net cash shortage January 1, 1895.....		\$ 4,481,462 08
To this add water certificates outstanding .....		667,000 00
Total shortage January 1, 1895.....		<u>\$ 5,148,462 08</u>

It has been claimed that this cash shortage was offset by the General Fund amounting to \$2,464,739.19. As a matter of fact the amount to the credit of the General Fund was not available, the entire sum having been loaned to the various City Departments, and used to pay their bills in anticipation of the collection of taxes of 1894 levied for their payment. The actual cash represented by this credit of \$2,464,739.19 was not and could not be available until the taxes of 1894 (collected in full a year later) should come to hand. The amount to the credit of the General Fund on January 1, 1895, was a paper credit and not a cash one, being made up of debts due it from Departments, the payment of which would have to await the collection of their taxes.

January 1, 1895, the accounts of the City were \$6,156,269.28 short, not deducting cash in the treasury. On the same date \$1,674,807.20 comprised the entire cash in the treasury. It follows, therefore, that on said date there was an actual net

cash shortage of \$4,481,462.02. To this add \$667,000 for water certificates, and it is evident that the City at that time was short \$5,148,462.08 to meet liabilities past due.

FINANCIAL RESOURCES FOR CORPORATE PURPOSES  
FOR THE YEAR 1895.

INCOME.

Equalized valuation of property .....	\$ 247,425,422 00	
Two per cent. on same.....	4,948,508 84	
Amount of taxes actually levied.....		\$4,943,213 17
Less 3 per cent. for non-collection .....	\$ 148,455 24	
Cost of collection .....	64,920 00	
		<u>213,375 24</u>
Net income from taxes.....		\$ 4,729,837 93
Income from miscellaneous sources, mainly saloon licenses.....	\$ 3,964,429 66	
From other sources .....	322,963 40	
		<u>4,287,393 06</u>
Total income .....		<u>\$ 9,017,230 99</u>

EXPENDITURES AS PER APPROPRIATIONS MADE BY COUNCIL.

Police Department.....	\$ 3,396,715 00	
Fire Department .....	1,597,139 50	
Total Police and Fire Departments .....	\$ 4,993,854 50	
Total income from taxes.....	4,729,837 93	
Excess in expenditures of these two Departments over receipts from taxes .....	\$ 264,016 57	
Income from miscellaneous sources .....	\$ 4,287,393 06	
Deduct excess Police and Fire Departments.....	264,016 57	
Leaving balance to meet other appropriations as below indicated.....		<u>\$ 4,023,376 49</u>
City cemetery.....	\$ 100 00	
City Clerk expense.....	15,000 00	
Contingent fund.....	12,000 00	
Repairing improved streets.....	200,000 00	
Street and alley cleaning (\$250,000.00 for clean- ing improved streets) .....	665,900 00	
Cleaning and repairing unimproved streets.....	150,000 00	
Sidewalks and intersections .....	75,000 00	
Canal pumping works .....	62,880 00	
Chicago harbor .....	23,390 00	
Removing rock, South Branch.....	25,000 00	
Bridge repairs .....	115,000 00	

Fullerton avenue bridge.....	\$ 10,000 00	
South Halsted street bridge .....	50,000 00	
Diversey street bridge .....	15,000 00	
Van Buren street bridge .....	23,477 30	
Van Buren street viaduct.....	12,000 00	
Fullerton avenue conduit.....	14,755 00	
Bridge tenders' salaries.....	88,080 00	
Public buildings .....	35,000 00	
Janitors' salaries .....	47,883 20	
Parks.....	10,500 00	
Bridgeport lock.....	12,800 00	
Street Department salaries .....	15,630 00	
Map Department salaries.....	15,840 00	
City Engineer's Department salaries .....	12,400 00	
Commissioner's office salaries.....	13,930 00	
Steam roller engineers' salaries.....	1,800 00	
Street openings and obstructions.....	7,200 00	
Street Department office expense .....	1,500 00	
Map Department office expense .....	800 00	
City Engineer, office expense .....	750 00	
Proportional office expense .....	1,750 00	
Public benefits.....	1,000 00	
Street lamp repairs .....	50,000 00	
Vessel Despatchers' salaries .....	2,250 00	
Bridge Telephone Operators' salaries.....	8,400 00	
Election expense.....	150,000 00	
Health Department.....	219,200 00	
House of Correction .....	50,000 00	
Judgment account.....	200,000 00	
Legal expense .....	25,000 00	
Police Court expense .....	2,000 00	
Pounds .....	2,500 00	
Printing and stationery .....	8,000 00	
Salaries .....	216,290 00	
Sewerage fund .....	106,653 03	
Gas, oil and electric street lamp fund.....	565,000 00	
Total .....	\$ 3,441,658 53	
To this add extra expenses actually incurred in excess of these appropriations and author- ized by City Council by emergency appropri- ations, etc.....	687,365 85	
Total.....		\$ 4,129,024 38
Excess of expenses over actual income.....		\$ 105,647 89
To this should be added additional judgments, not included in foregoing, and rendered against the City, amounting to.....		440,861 90
Showing a total excess of expenses over actual income of 1895, for corporate purposes, amounting to .....		\$ 546,509 79

It will be seen from the above that during 1895 the City incurred expenses, in excess of its income, for corporate purposes, amounting to \$105,647.89, thereby depleting the General Fund to that extent, and as to this may be added judgments, amounting to \$440,861.90, the result shows a loss to the City during 1895, when compared with its income for the year, of \$546,509.79.

In the expenses of 1895 are bills amounting to \$91,000 which are properly chargeable as expenses of the year 1894 and prior year. There are also some other items which are really beyond the control of the City government, such as election expenses and judgments for damages, etc.

The actual receipts from miscellaneous resources somewhat exceeded the estimates thereof, as will be seen from the following statement from the City Collector's Office:

Comparative statement of receipts in the City Collector's Office for the year commencing May 8, 1895, and ending May 7, 1896, with same dates of the previous year—

*Receipts for Licenses—*

1896.....	\$ 3,921,791 54	
1895.....	3,654,069 81	
		<hr/> \$ 267,721 73

*Receipts for Special Cash—*

1896.....	\$ 1,125,963 05	
1895.....	953,217 95	
		<hr/> 172,745 10

*Receipts for Building Permits—*

1896.....	\$ 55,860 80	
1895.....	37,725 50	
		<hr/> 18,135 30

*Receipts for Elevator Inspection—*

1896.....	\$ 13,810 00	
1895.....	11,340 00	
		<hr/> 2,470 00

*Receipts for Dog Pounds—*

1896.....	\$ 5,701 65	
1895.....	1,423 75	
		<hr/> 4,277 90

Total increase.....		<hr/> <hr/> \$465,350 03
---------------------	--	--------------------------



It is sometimes said that the City of Chicago has a sufficient income to meet all necessary expenditures if economy is practised. The statement is not true. Your honorable body reduced the estimates of the Departments for 1895 over two million dollars and appropriated manifestly inadequate sums for absolutely necessary expenses. For example, the sum of \$565,000.00 was appropriated for gas, oil and electric lighting when it was apparent that the actual cost of such lighting would amount to more than \$900,000.00. If we had limited the street lighting according to the appropriation our citizens would have been for months past absolutely without light. The small appropriation was made because of the belief that the gas companies could be put off and made to accept judgments in lieu of cash.

STATEMENT SHOWING APPROPRIATION, COST AND SHORTAGE  
OF STREET LIGHTING FOR 1895.

	COST.	APPROPRIATION.	SHORTAGE.
For lighting by gas .....	\$602,032 62	\$350,000 00	\$252,032 62
For lighting by gasoline .....	170,983 05	75,000 00	95,983 05
For lighting by electric light....	160,251 66	140,000 00	20,251 66
Totals .....	\$933,267 33	\$565,000 00	\$368,267 33

Although, on January 1st last, judgments against the City to the amount of \$601,666.26 were unprovided for, there was appropriated only \$200,000.00 towards their payment. During 1895 additional judgments have been rendered against the City amounting to more than \$600,000.00, making a total of \$1,155,922.00 now unprovided for. These additional judgments were entered mainly by confession of the City, and were nearly all due to the fact that the appropriation was insufficient for actual expenses, the contracts for which were entered into previous to the passage of the regular appropriation bill. This small appropriation was compulsory, and due to a lack of

means to provide for the necessary expenses of the City, consequently the corporation was obliged to confess judgment in the premises.

We had in 1895 1,100 miles of improved streets and alleys. There was appropriated the sum of \$225,000.00 for keeping them clean, obviously an insufficient amount. If the appropriation was divided equally among the several months, and each and every street received equal attention, it would result in the expenditure of *sixty-three cents per day for each mile of streets*. At the beginning of the present administration there had been expended for street cleaning, from January to April 1st the sum of \$140,204.55, leaving an unexpended balance for the remaining nine months of \$109,795.45. This, if equally distributed, would make a daily expenditure of not quite *thirty-seven cents per mile*. That portion of the First Ward from Van Buren street north to the River was swept twice per week during the entire time the Civic Federation assisted in cleaning the same, making in all 352 miles at \$18.50 per mile, or a total of \$6,512.00 expended by the City. Previous to the incoming of the present administration the contract for the sweeping of streets had been let to the firm of J. H. Burke, at \$18.50 per mile.

The appropriation for cleaning alleys of garbage, ashes, etc., was \$335,000.00. It is estimated that this refuse accumulates at the rate of 750 tons per day. The sum appropriated will allow only *twelve cents* per ton for its removal. Previous to May first no record was kept of the quantity of garbage, ashes, etc., removed, but since that time, through systematic records, we find that 940,080 loads were removed, representing 4,427,040 yards.

The total appropriation made to clean 1,100 miles of improved streets and alleys and to remove garbage, ashes, etc., including the cost of supervision, was \$665,000.00 (in 1893 the



appropriation was \$1,000,000.00). New York, with less than 400 miles of streets and alleys, had \$3,070,000.00 for street cleaning, removal of garbage, ashes, etc., for the present fiscal year.

For the repair of 1,100 miles of improved streets there was appropriated for the present fiscal year the sum of \$200,000.00, or *\$18.00 per mile per year*.

For the care and cleaning of 1,403 miles of unimproved streets, the sum of \$150,000.00 was appropriated, or *\$10.69 per mile per year*.

Numerous other illustrations, equally striking, of inadequate resources might be given, but the foregoing will suffice. They emphatically show the insufficiency of the City's revenues to meet its requirements.

The conditions stated are mostly due to an insufficient income brought about by the inequalities of taxation, and notwithstanding the appropriations are inadequate as noted, the entire income of the City is yearly appropriated for corporate purposes. Chicago is growing each year and requiring increased expenditures, while its income remains stationary.

We have reduced the bonded debt during the year 1895 \$534,000.00, as per following :

#### BONDS REDEEMED DURING THE YEAR 1895.

		PAID.
Municipal, 6 per cent .....	\$ 100,000 00	General Sinking Fund.
World's Fair, 5 per cent.....	9,000 00	Dividends from World's Fair.
Town of Lake, 5 per cent.....	15,000 00	Water Fund.
Sewerage, 7 per cent.....	13,000 00	Sewerage Sinking Fund.
Hyde Park, 7 per cent .....	322,000 00	Water Fund.
Lake View, 7 per cent.....	75,000 00	Water Fund.
	<hr/>	
	\$ 534,000 00	

The total cash deficiency on January 1, 1896, to meet all outstanding liabilities, other than the bonded debt, was \$5,597,847.73, made up as follows :

## LIABILITIES.

Outstanding coupons .....	\$ 55,096 16	
Electric light and railway companies.....	56,417 48	
Interest account.....	372,605 00	
Judgments (appropriated for).....	426,190 61	
Judgments (not appropriated for).....	1,155,922 10	
Pension funds .....	215,886 87	
Sinking funds .....	1,090,672 21	
Special funds.....	643,414 17	
Taxes for street intersections.....	990,000 00	
Track elevation damages .....	100,000 00	
Unclaimed wages.....	10,236 11	
Accounts payable (miscellaneous).....	1,021,125 41	
Tax loans and revenue warrants.....	1,197,679 69	
<b>Total debt January 1, 1896.....</b>	<b>\$ 7,344,245 81</b>	
<b>Less cash in treasury and banks.....</b>	<b>1,946,898 08</b>	
<b>Actual net cash deficiency January 1, 1896.....</b>		<b>\$ 5,397,347 73</b>
<b>To this add water certificates (outstanding).....</b>		<b>200,500 00</b>
<b>Total deficiency in cash January 1, 1896, to meet outstanding obligations .....</b>		<b>\$ 5,597,847 73</b>

The following is a condensed statement of all assets and liabilities of the City of Chicago, January 1, 1896, as shown by the books of the City Comptroller :

## ASSETS.

Buildings, realty, water works, etc., at cost.....	\$ 53,294,257 05
Uncollected taxes of 1895 .....	14,239,685 13
Cash in banks and treasury.....	1,946,898 08
Norwood Park tax certificates .....	596 78
Special taxes levied for paving, etc.....	135,800 00
<b>Total .....</b>	<b>\$ 69,617,237 04</b>

## LIABILITIES.

Bonded debt.....	\$ 17,188,950 00
Special improvement bonds, 6 per cent.....	135,800 00
Water certificates.....	200,500 00
Trust funds .....	38,920 00
School Board .....	7,983,956 05
Public Library .....	768,671 82

Coupons outstanding .....	\$ 55,096 16
Electric light and railway companies .....	56,417 48
Interest account .....	372,605 00
Judgments (appropriated for) .....	426,190 61
Sinking funds .....	1,090,672 21
Special funds .....	643,414 17
Track elevation damages .....	100,000 00
Unclaimed wages .....	10,236 11
Accounts payable (miscellaneous) .....	1,021,125 41
Tax loans and time warrants, 1895 .....	1,197,679 69
Surplus value of unexpended balance appropriations, .....	102,023 98
Surplus value of general fund .....	2,359,091 30
Surplus value of realty and buildings at cost over bonded debt, water certificates and trust funds...	35,865,887 05
Total .....	<u>\$ 69,617,237 04</u>

A floating liability exists in addition to the foregoing, made up as follows :

Special taxes street intersections .....	\$ 990,000 00
Unappropriated judgments .....	1,155,922 10
Pension funds .....	215,886 87
Total .....	<u>\$2,370,808 97</u>

This liability for street intersections and judgments will, no doubt, be provided for by future taxation and appropriations. In the meantime, if charged against the City's surplus funds, it would reduce the surplus as shown above proportionately.

The following letter addressed to the Mayor explains this street intersection account more fully :

DEAR SIR : I take pleasure in replying to your inquiry concerning the liability of the City for taxes for street intersections.

This liability is made up of special taxes levied against the City for paving and improving intersections of streets. For example : The County Court, in confirming assessments for the paving of streets, has adjudged the paving of street intersections to be in the nature of a public benefit, and the taxes for their improvement are, therefore, levied against the City of Chicago and not against the individual property owners of the street. It was presumed by the Court that the Common Council would provide for the payment of these taxes by appropriation from the general taxes levied against



the citizens for corporate purposes, thereby making the general public pay for the improvements known as public benefits. For some time the Council did make such appropriations, and the City paid in to the Special Assessment Fund the taxes levied against it for the improvement of street intersections. For some years past, however, the Council has failed, owing to limitation of taxes and lack of income, to appropriate moneys for the special taxes levied against the City and, as a result, such taxes (as reported by the Special Assessment Bureau) have accumulated to the extent of \$1,000,000.00.

All rebates have been based, by the Special Assessment Office, on the collection of these taxes from the City, and, of course, in the absence of such collection the property owner must go without the rebate to which he is clearly entitled. In assessments in which no rebate is due, the contractor is forced to suffer. For instance: A contract is let for \$10,000 to 'pave a certain street; the citizens owning adjoining property are taxed \$9,000, and the City is taxed \$1,000 for the intersections. The contractor receives the \$9,000 paid in by the property owners, but he must wait for the balance of his money unless the City pays the amount levied for the intersections. The money due the contractor is simply a portion of the \$1,000,000 which the City owes for special taxes. Clearly, then, these taxes are liabilities of the City which should be met, for unless they are paid the citizen must go without the rebate, to which he is justly entitled, and in many cases the contractor must go without pay for work honestly performed.

It is true that a large portion of our taxpayers are unaware of the fact that rebates are due them, but I do not think this gives the City the right to withhold their money and evade its liabilities.

(Signed) LOUIS S. HAYES,

*General Accountant.*

#### INCOME AND EXPENSES FOR 1896.

The expenses estimated as necessary by the heads of Departments for the year 1896, for corporate purposes, amounted to .....	\$11,171,968 04
The income for corporate purposes, based on income of 1895, is estimated at.....	8,525,308 66
Showing a deficiency in income to meet estimated expenses amounting to.....	<u>\$ 2,646,659 38</u>

Owing to the above deficiency there could be appropriated but \$8,500,000.00 for corporate expenses of 1896, thereby crippling all the departments and rendering it impossible to give satisfactory metropolitan service to the community. The administration must struggle along under these adverse conditions until a new revenue law permits it to secure a fair share of the taxes paid by our citizens. The assessed valuation of the township of Lake View for 1895 amounted to \$5,994,429.00, on which a tax of two per cent. was levied for corporate purposes, producing, in money for City expenses, only \$119,888.58. The cost of maintaining the police force in Lake View alone for 1895 amounted to \$130,641.07. It will be seen that the entire town of Lake View does not pay the City enough money, in taxes, to maintain its police force, rendering it unnecessary to refer to its expenses for Fire Department, Street and Alley Cleaning, Bridges, and Municipal Salaries, etc. This is true of many of the other towns. Changes in the revenue law, which will produce a larger income for corporate purposes, is absolutely necessary or these conditions will continue.

The total bonded debt of Chicago on January 1, 1895,	
was. ....	\$17,722,950 00
The present bonded debt is .....	17,188,950 00
	<hr/>
Showing a reduction during 1895 of .....	\$ 534,000 00
	<hr/> <hr/>

Bonds amounting to \$2,748,000.00, bearing interest at seven per cent. per annum were retired and refunded at four per cent., thus effecting, with the bonds redeemed and canceled, an annual saving, in interest, of \$118,200.00.

As compared with other cities the bonded debt of Chicago is small. The present low assessment of property, in conjunction with the five per cent. limitation for the issuance of bonds, makes it necessary for the present generation to bear the whole cost of many permanent improvements which should



be borne partially by posterity. Here, again, the remedy lies in a new revenue law which is indispensable for our future municipal prosperity.

A few words ought to be added to remove any misconception there may be as to the actual financial credit of this City. The difficulties with which we have to contend, and which I have sought to present, relate to an absence of ready cash to meet current obligations, but there need be no apprehension about the ability of this City to pay every dollar it now owes or appears likely to owe. Since the great fire of 1871 the City has acquired, and now owns, real estate and improvements which cost more than fifty millions of dollars, nearly three times the amount of its total bonded indebtedness. No large city in the country has relatively so small a debt. Our water works system alone yields an annual revenue of more than two millions of dollars above its operating expenses, and when the system is improved by the completion of tunnels and pumping stations now under way its annual net income can be applied toward the payment of the water fund bonded indebtedness now something less than four millions of dollars, and toward the accumulation of a surplus fund available for further extensions and for general City purposes.

#### DEPARTMENT OF PUBLIC WORKS.

The Department of Public Works has been administered during the past year with an eye solely to economy and efficiency. It is one of the most difficult branches of the municipal government to administer. My general directions, applicable to it as to other departments, have been that business methods and principles must prevail, that merit must be the sole qualification for employment and promotion, and that a full day's service must be rendered for a day's pay. The results have been very gratifying. For details I refer you to the Commissioner's full report, but a summary shows, among other

things, a decrease of \$678,379.28 in the pay rolls for a period from April 1, 1895, to April 1, 1896, as compared with the period from April 1, 1894, to April 1, 1895.

The following comparative statement shows this decrease by months:

I invite your attention to the Commissioner's detailed report which shows an unusual amount of work done by the Department during the past year.

"The following is a comparative statement by months of the pay rolls of the Department of Public Works, from April 1, 1895, to April 1, 1896, with the previous year, April 1, 1894, to April 1, 1895:

"DEPARTMENT OF PUBLIC WORKS.

1894.		1895.	
April .....	\$ 204,415 23	April .....	\$ 189,381 77
May .....	224,227 50	" Investigated.....	45,454 19
June .....	251,692 08	May .....	158,221 60
July .....	215,679 82	June .....	189,158 51
August .....	222,759 90	July .....	246,340 53
September .....	248,214 28	August .....	233,605 78
October .....	358,669 81	September .....	268,485 49
November .....	240,146 46	October .....	271,756 05
December .....	232,018 21	November .....	204,005 77
		December .....	193,074 26
1895.		1896.	
January .....	237,707 27	January .....	153,503 66
February .....	268,446 06	February .....	188,132 25
March .....	474,459 83	March .....	158,937 31
Total for 12 months..	\$ 3,178,436 45	Total for 12 months..	\$ 2,500,057 17
Decrease.....			\$678,379 28

"Of this amount \$18,486.46 is under investigation.

"Of the above pay rolls for 1894, \$51,000 is for contract work. The same work in 1895 was done by the Department of Public Works and carried on the pay rolls.

"Respectfully,

"L. E. GOSSELIN,

*Bookkeeper Department Public Works.*

"ALEX. HARPER,

*Expert Accountant."*



## BUILDING DEPARTMENT.

When the present Commissioner of Buildings entered upon his duties there was a deficit in his Department of \$3,465.00. Notwithstanding the limited building operations of the past year this Department has accomplished the extinguishment of the deficit, and has now a substantial sum to its credit.

I submit a general statement of the Department receipts and expenses from May 1, 1895, to May 1, 1896, from which you will note the excellent showing that the net excess of receipts over expenses is \$19,220.94 :

1895.	Receipts.	Expenses.	Gain.	Loss.
May .....	\$ 7,649 35	\$ 3,765 87	\$ 3,883 68	.....
June.....	7,013 05	4,325 52	2,687 53	.....
July.....	7,284 00	4,491 84	2,792 16	.....
August.....	6,499 00	4,343 43	2,155 57	.....
September.....	6,077 60	4,486 84	1,590 76	.....
October.....	6,461 70	4,400 33	2,061 37	.....
November.....	4,724 00	4,262 49	461 51	.....
December.....	3,231 40	3,602 71	.....	\$ 371 31
1896.				
January.....	4,374 00	3,565 48	808 52	.....
February.....	3,730 00	3,890 04	.....	160 04
March.....	5,858 40	4,262 48	1,595 92	.....
April.....	6,085 50	4,262 48	1,823 02	.....
Total.....	\$68,988 20	\$49,767 26	\$19,860 04	\$ 531 35

Net gain for one year from May 1, 1895, to May 1, 1896, \$19,220 94.

## HEALTH DEPARTMENT.

I am very much gratified, and I think the public is at least satisfied, with the result of the experiment of placing the Health Department under the charge of a business man as Commissioner of Health. It was an "experiment" only so far as this City is concerned. The model health department of this country, if not of the world—that of New York City—has for many years had a non-professional business man at its head and it has been under such charge that it has made its most marked improvement.

It is not too much to say that, for the period covered by this radical change in our own Health Department, the improvement has been quite as marked as it was in New York. There is a higher degree of efficiency in every branch of the health service and a more systematic organization and location of responsibility resulting from the separation of the practical business details of administration, discipline, expenditure and accountability, from the professional and executive functions.

The effect of this is seen in the great practical development of the Municipal Laboratory in safeguarding the food supplies of the people, including milk, ice, water, etc. ; in the broader scope and more scientific character of the work done by the medical staff, as in vaccination, antitoxin treatment of diphtheria, the prevention and suppression of the contagious diseases, etc. ; and in the greater efficiency of the bureaus of sanitary, smoke, tenement and factory inspection.

Some of those improvements and reforms are worthy more space than can be given them in this connection. But the great work done in improving the quality of our milk supply must be noted. This was one of the matters to which the Commissioner first directed his attention ; and when a vigorous and systematic inspection of milk and cream offered for sale was begun under his instruction, in the early summer of 1895, it was found that out of every 100 samples collected and examined in the City Laboratory, from 60 to 65 were adulterated, watered, colored, or otherwise unfit for food — especially unfit for the food of infants and young children. Prosecution was begun in every instance where the analysis showed adulteration — against high and low alike, without favor or exception — and fines of from \$25 to \$100 were secured. In three weeks the proportion of impure milk and cream fell from 60 to 65 samples in the hundred to from 8 to 10. During September 2,211 samples were collected and examined, and only 185 were found below



grade, or about one-twelfth of the total number, and during the past month the proportion has varied between 1 and 5 of below-grade samples in the 100 collected. Between July 1, 1895, and April 30, 1896, a total of 1,180 violators of the milk ordinance were prosecuted and convictions obtained in 1,072 cases; during the six months prior to July 1, 1895, there were less than 90 offenders, all told, against whom suits were begun, and with few exceptions these suits were dismissed at the cost of the City.

As a result of this work it is thought that our Chicago milk supply is now, and for months has been, the best of any large city in the United States. It is also believed that the reduced number of deaths of children under five years of age during the past twelve months is due, in large measure, to this cause. Fewer such deaths have occurred during this period than in any corresponding period since 1890, notwithstanding our increase in population and the natural increase in the proportion of children, and notwithstanding that the total number of deaths of all ages was larger. The figures furnished me are as follows: Average deaths under five years in 1891, 1892, 1893 and 1894, 12,033. Deaths under five in 1895, 10,499. Saving of child-life, 1,554, part of which, however, may be attributed to the results of a lesson learned in New York.

During an inspection of the New York Health Department last summer the Commissioner was much impressed with the records of the results of treating diphtheria with the antitoxin, which showed that the death rate of the disease in that city had been reduced more than one-half by the use of the new remedy. He called my attention to the matter, and, upon examination, I also became convinced. Through the courtesy of the New York Health Department an agreement was made whereby our Department was enabled to procure antitoxin at the actual cost of its production in New York, which was less

than one-half the price charged to physicians in Chicago. The previous high price had restricted its use here, especially among the poor, whose children furnish the largest number of diphtheria victims. The disease became epidemic in many parts of the City in the early fall, the daily number of deaths in October being higher than for many years previous, and it seemed probable that many of the public and parochial schools would have to be closed on this account. An emergency appropriation of \$5,000.00 was secured, nearly 100 stations for the distribution of antitoxin (to physicians at cost, and for charity cases gratis) were established in different parts of the City, and a corps of fifteen physicians skilled in the administration of antitoxin and the treatment of diphtheria were employed to assist other physicians and to treat charity cases.

The carefully recorded reports of these antitoxin experts, and of several hundred private physicians, show that the epidemic was cut short three months earlier than ever before in the history of diphtheria in Chicago. That is to say, that, reaching its maximum in October, with an average of more than eight deaths per day, the disease steadily declined to less than four deaths a day in January and less than one a day for some time recently; whereas, in former years it continued unabated for from two to four months after reaching its height.

In the best judgment of the medical officers of the Department, and of the members of the antitoxin corps, the lives of not less than 700 children have been saved since October, 1895, by the use of antitoxin, and the most experienced physicians of all schools do not hesitate to say that this much dreaded disease is now less dangerous than many of the minor ailments of childhood, *provided*, it is treated in its early stage with the antitoxin serum. The remarkable success of the Chicago Antitoxin Corps has attracted practically world-wide attention. A recent communication (April 20) from the New York Health



Department asks for a statistical report of the results obtained by our Department in the use of the diphtheria antitoxin and says :

“From such reports as we have obtained of your results, we judge that they have been of extraordinarily satisfactory character, and we believe that they will be of great service to this Department in the pushing of its work in New York City.”

Among the other work of the laboratory, which, since July 1, 1895, has embraced more than 21,000 analyses, involving over 90,000 manipulations, a chemical analysis of the water and expert sanitary inspection of every locality from which ice for domestic use has been cut was made during the fall and winter months. It is believed that the ice now being sold in Chicago for domestic use is purer than the supply has been for many years. Constant supervision is being exercised over its distribution, and no ice has been cut for cooling purposes only, to the knowledge of the Department, except on permit granted on filing a bond for \$5,000, to be forfeited on proof of its sale for domestic purposes.

During the period ended April 30th, 1896, a total of 14,976 violations of the smoke ordinance were investigated, 3,444 of which were on complaints made to the Department, and 11,532 were discovered by the inspectors. In about 90 per cent of the cases an abatement of the nuisance was secured, mainly by changes or repairs of furnaces, application of smoke-preventing devices or insistence on use of those already in place, and in a minority of cases by changes in fuel. It was found necessary to prosecute offenders in 597 cases; 418 convictions were obtained and fines imposed, and 179 cases were dismissed on abatement of nuisance and payment of costs.



## POLICE DEPARTMENT.

The communication to me from the General Superintendent of Police herewith submitted, presents an excellent statement of the past year's work of the Police Department. The record of the Department is a highly commendable one, and shows the growing efficiency, faithfulness and discipline of the police force under its present chief.

CHICAGO, May 9, 1886.

HON. GEORGE B. SWIFT,  
*Mayor.*

DEAR SIR: Complying with your request of this morning, I beg to submit the following figures, showing the practical results attained during the first year of your administration in police matters:

The total expenditure for the twelve months ending April 1, 1896,	
for salary and miscellaneous expenses . . . . .	\$ 3,309,474 00
The total expenditure for the corresponding twelve months prior	
to your inauguration . . . . .	3,674,511 00
Showing a net gain or saving by this Department, for the year, of..	\$ 365,037 00
Number of arrests during 1895 . . . . .	83,464
Amount of fines assessed . . . . .	\$ 301,555 00
Fugitives arrested in Chicago and sent to other cities . . . . .	135
Lost and stolen property recovered . . . . .	\$ 404,150 25

Upon assuming the position of General Superintendent of Police, one of the first things to which I directed my attention was the enforcement of the Midnight Closing Ordinance and the abolishment of the objectionable concert halls that were everywhere open at that time. This resulted in a large reduction in crime, which was noticed and commented on favorably by the press.

I next addressed myself to the abolition of public gambling, which was running wide open in all parts of the City. Complying with your orders I instigated a crusade against them, which resulted in closing every public gambling house in Chicago.

We next addressed ourselves to the massage parlors, a large majority of which have been driven out of business.

The Department then addressed itself to the question of exterminating the opium joints, and I am pleased to report in this connection that thirty-one of the so-called public "hop joints," where opium

was formerly smoked, have been permanently closed in the South Division. Similar places are now being raided daily in the West Division with similar results.

Chinese gambling has also been virtually wiped out.

During the past year the Department has rendered effective service in preventing disorder instant to the numerous strikes, lock-outs, etc., and I am pleased to report that, with but few exceptions, the policy of the Department in treating organized labor and capital with equal consideration, according to each the fullest protection in their rights, has been the means of avoiding a great deal of trouble that would otherwise have existed. The fact that we have been able to satisfy employers and employees alike, is the best evidence that the Department has directed its efforts in this direction strictly within the law.

Complying with your direction the Department has been taken entirely out of politics, the conduct of the Department at the recent election in this respect being such as to challenge the commendation even of the opposing political parties; absolute order prevailing throughout the day and complete protection was afforded to every citizen at the polls.

Since the inauguration of Civil Service this Department has drawn upon the Civil Service Commission for about 120 men.

The discipline and *esprit de corps* of the Department during the past year has been constantly improving, and the men, from what I am able to learn, are much pleased with the new order of things, for, while the discipline of offenders has been severe, the men who have sought to discharge their duty faithfully have felt themselves secure in their positions. No doubt the merit system, which controls all promotions in the Department since the operation of the civil service law, has acted as a spur to the men and officers of the Department to do more zealous work and a more faithful attention to their duty.

In this connection permit me to return my sincere thanks for the hearty co-operation and assistance which you have afforded me in the discharge of my duties, without which my efforts would have been of no avail.

(Signed) J. J. BADENOCH,  
General Superintendent.



## OTHER DEPARTMENTS.

The work of the other Departments during the past year has been satisfactory, and in general is well understood. There have been no occurrences in connection with any of them calling for special notice here.

## PUBLIC LIGHTING.

The proper lighting of our streets and other public places has been a subject of much perplexity. About two-thirds of the total expense goes for gas, the most of which is furnished by the leading gas companies, formerly constituting what was known as the "Gas Trust." In 1891 the City made a written contract with these companies, under which it agreed to take gas from them for that year at certain prices and the companies agreed to furnish gas at those prices as long as the City should require it; also to pay  $3\frac{1}{2}$  per cent. of their gross receipts into the City Treasury as long as any one of them should so furnish gas to the City, and to reduce their price of gas to private consumers five cents per thousand feet each year until the price should be one dollar per thousand feet. Street lamps consume the bulk of the gas supplied by these companies, and the price fixed by the contract in respect to street lighting, including ordinary maintenance and care of the lamps, was \$22.00 for each lamp per year, bills to be rendered quarterly and payments to be made within thirty days after the bills were rendered, with a rebate of \$2 per lamp upon payments made within the thirty days. At the beginning of my administration it was apparent that the City appropriation made would not enable the City to pay in cash throughout the fiscal year for the gas to be supplied, and some further arrangement had to be made with these companies. After some negotiations it was agreed that the companies should be paid as far as practicable from the appropriations, and should take judgments

for the balance which might become due them; that except to street lighting the prices should be the same as fixed by the contract of 1891, and that the price of gas for each street lamp per year should be \$20.00 net, a reduction of \$2.00 in respect to the considerable portion of the total gas to be furnished for which the City could not make cash payment.

This year the lighting appropriation is again inadequate. The principal gas companies have agreed to furnish gas at the same prices as last year up to the limits of the available appropriation, but they have declined to accept judgments for any portion of the gas to be supplied by them. Provision has therefore been made for public lighting as far as the appropriation will go, but this will cover only a little more than one half of the year with rigid economy and inadequate lighting, and some further provision will have to be made upon the subject later. The problem is a difficult one, but I believe it will be susceptible of reasonably satisfactory solution.

#### SPECIAL ASSESSMENTS.

Complaints are frequently made about the working of our special assessment system, and it must be admitted that there is some foundation for them. The principle underlying the system is undoubtedly sound, for it contemplates that property benefited by an improvement shall bear the cost of the improvement. Unfortunately, like all other human things, it is subject to great abuse in practice. The City's lack of resources often compels it to put the expense of some needed work upon property owners, as it may lawfully do when in fairness the work should justly be paid for out of the public treasury. The law allowing assessments to be paid in installments is particularly unsatisfactory, and, in many if not most cases, results in injustice either to the contractor or to some of the property owners assessed. It is difficult to see what radical changes



can be made in the system without violating sound principles of government. In this matter as in all others the power to do the right thing usually involves the power to do the wrong thing. During the past year great care has been taken by the Department of Public Works to keep the cost of improvements paid for by special assessments down to the lowest practicable point, and this effort has been very successful.

Under instructions from the Mayor, under date of April 15, 1895, the engineers in charge of the various improvements were directed to reduce their estimates. This was done and the estimates made were based upon prices which were bid upon the various improvements at that time. An average reduction of 21 7-10 per cent. resulted, the details of which will be found in the report of the Commissioner of Public Works.

The contracts awarded during the year of 1895 were lower than at any previous time, and if the same favorable figures should be obtained during the present season it would seem that even a farther reduction of the estimates might be safely made and still keep within the actual cost of the work. In all the work now completed, which will have to be paid for in 1896, more than 90 per cent. of the rebates have already been deducted from the assessments which were in the hands of the City Collector up to March 31, so that, with the exception of this small percentage, he turned over to the County Collector, on March 31, as delinquent, only the actual cost of the work, thus doing away with the trouble of paying the full amount of the assessment and collecting the rebates afterwards. Before the time for payment to the County Collector the remaining percentage will be deducted from the assessments which were in his hands on April 1, so that there will virtually be no rebate to collect on all work done in 1895. This, of course, does not apply to those who have already paid their assessments, but this amount is not large.

The volume of business has largely increased over that of the previous year, as there were 1,019 assessments made in 1894, amounting to \$2,904,721.11, while in 1895 there were 1492, amounting to \$4,013,787.11. The expenses of the Bureau were \$84,955.19 less than for 1894.

I cannot find that there is basis for serious complaint respecting the manner in which the special assessment system is administered after an improvement has been once ordered by proper ordinance, but there is undoubtedly much basis for complaint in the hasty ordering of improvements without substantial demand therefor.

The paying of special assessments is oftentimes a great burden upon property owners of moderate and limited means, and great care should be taken to investigate the necessity of an improvement before it is ordered, for the purpose of ascertaining whether it is really needed. The private property owners affected cannot, of course, be allowed the conclusive determination of the matter, for the public welfare must be equally consulted. But many improvements are undoubtedly ordered which are plainly unnecessary and burdensome. Once properly ordered an improvement should be allowed to go forward and not stayed nor abandoned. Uniformly, I have vetoed the repeal of ordinances providing for improvements by special assessment after the work has been undertaken, or after costs have been incurred which would be payable out of the City treasury, because, in the long run, I believe that course will be for the benefit of the public and of the property owners generally. Probably some effort will be made at the next session of the Legislature to modify this special assessment law, and no doubt it can be improved, but while this effort is making we must be alert to see that the law is not in such shape that it will become impracticable and will stop the progress of improvements in this growing City.



## COMPENSATION FOR THE USE OF STREETS.

The subject of compensation for the use of streets is somewhat hackneyed but it is too much alive to be passed over without notice here. Licenses for the use of streets—which we commonly but erroneously call “franchises”—are constantly being granted, and must, in the nature of things, continue to be granted in some degree to corporations of all kinds, and to individuals, for varied purposes. The justification for such grants is the public benefit expected to be derived therefrom, directly or indirectly. Without such benefit they would be without excuse. The subject is one of the most troublesome with which a municipal government has to deal. The general interest of the community as a whole is so intimately connected with and dependent upon the individual interests for private enterprises that it is oftentimes exceedingly hard to know what to do in a given case. We must always keep in mind the fundamental principle that the streets belong to the public and must be used for the public benefit. It does not much matter how this benefit is received, whether directly or indirectly, nor in what shape. Conditions are changing all the time, bringing new demands which must be met. A license to a street railway company to use a certain street at one time might well be something for which the community could afford to pay, where, at a later period, it would be enormously valuable and capable of being sold at a high price if the street were unoccupied. Same thing applies to licenses in different localities of the City, and it applies equally to the use of a street by a fruit stand, by a gas main, or by a railway track. The present sentiment of the community is clearly in favor of exacting a monetary compensation to the City for street privileges in all cases where it is reasonable or practicable, and this sentiment seems to be just. I am heartily in accord with it. The difficulty is to determine just what compensation should be exacted in a given case, and when there should be none at all. It is



plain that the compensation should bear some relation to the value of the privileges granted and to the profits likely to be realized therefrom. During the past year I have made every reasonable effort consistent with what seemed to be a due regard for the public interest to obtain adequate compensation for the privilege of using the streets, and, in most instances, with a fair degree of success. In some instances, where I have felt constrained to yield to my personal judgment, I have done so with great reluctance.

#### TRACK ELEVATION.

Gratifying progress has been made during the past year in the matter of securing the elevation of railway tracks and their consequent removal from the surfaces of the streets. A few years ago the railroad problem in this City seemed almost hopeless. It was so vast that everyone hesitated to attack it. But the necessity of action grew more and more apparent, and presently a beginning was made. The Lake Shore & Michigan Southern Railway Company and the Chicago, Rock Island & Pacific Railway Company had undertaken to elevate their joint track for a considerable portion of its length within the thickly settled portion of the City, and the Chicago & North-Western Railway Company had taken like action as to a portion of its Galena division. During the past year arrangements have been completed between the City and the Chicago & North-Western Railway Company for the elevation of a considerable portion within the City of its Milwaukee and its Wisconsin divisions. Arrangements are also well under way for the elevation of a portion of the railway tracks on and along Rockwell street belonging to the Chicago & North-Western Railway Company, the Pittsburgh, Cincinnati, Chicago & St. Louis Railway Company and the Chicago & Northern Pacific Railway Company. Also for the elevation of the Pittsburgh, Fort Wayne

& Chicago Railway tracks from Fifty-third street to a point south of Englewood. Meantime the work upon the tracks of the Lake Shore & Michigan Southern and Chicago, Rock Island & Pacific Railways is progressing rapidly. It was feared at one time that this latter work might be interfered with by the position of the tracks of the Union Stock Yard & Transit Company, but a plan was agreed upon between the railroad companies and the Stock Yards Company whereby this embarrassment has been removed. The Stock Yards Company will presently submit an ordinance to you to carry out the plan. An ordinance will also be presently presented, by the railroad companies concerned, to provide for the elimination of the railway grade crossing at Clark and Sixteenth streets. This last matter has been a vexatious and perplexing problem. Much time and effort was required to bring about an agreement among the railroad companies themselves, owing to their varying interests, but ultimately such an agreement was reached as to the general plan of work. I have felt some discouragement over the slow progress in this matter, but I have had to realize that it is no easy thing to bring about an agreement between a dozen railroad companies with a dozen different boards of directors regarding the details of an expensive undertaking, and I have been constrained to be patient. In this, as in all matters, my desire has been to bring about some tangible substantial results of benefit to the City as soon as practicable, and to avoid the annoying delay and litigation so easy to be produced by controversy and drastic measures. The railroads of this City are here and are here to stay. They are enormous factors in our City's welfare, just as the City is of enormous benefit to them. Mutual fairness and consideration are necessary in treating the problem which their presence creates, and I am happy to say that in the earnest efforts which I have made in behalf of track elevation, I have been met in a fair and reasonable spirit by the railroad managements.



## LAKE FRONT SETTLEMENT.

For a generation a controversy existed concerning the Lake Front, involving the State, the City and the Illinois Central Railroad Company. The settlement of that controversy during the past year is a subject for congratulation. The details of the settlement need not be referred to here. But the outcome must soon begin to appeal to the pride of our citizens, who were so generally in favor of the settlement. The work of filling the ground west of the railroad tracks is being rapidly pushed, as well as the work done upon the outer wall. When the real improvement begins to take form and shape replacing the present ragged and unpleasant appearance of the locality it will then be possible to realize much better than we do now how much has been accomplished for the City in disposing of this long-pending controversy. I look back to my part in it with as much satisfaction as to anything which has occurred thus far during my administration.

## THE CIVIL SERVICE LAW.

The Civil Service law, which went into effect July 1, 1895, has received in the main the approbation of all good citizens. It is not free from defects, but its defects can easily be remedied. The system which it establishes of making appointments to subordinate positions purely on the merits of the applicant is a vast improvement in every way over the former system of making appointments by mere grace and favor. Sometimes one person and sometimes another is naturally affected by the law when he finds his influence curtailed, but in the end it will be conceded by all fair-minded persons that the working of the merit system tends to promote a better administration of public affairs and to promote the welfare of the City. The Commissioners administering the law have labored with zeal and faithfulness, and they have succeeded in their work with perhaps less friction than was to have been expected in

the case of a new law introducing so radical a change in government. The law has not yet been applied in the offices of the City Treasurer and of the Board of Education, but in my judgment it ought to be applied in both of them, and I believe it ultimately will be.

The effect of the Civil Service law has been very effective in aiding the work of taking the police force entirely out of politics and keeping it out. That was one task which I set for myself at the beginning of my administration, and the General Superintendent of Police has earnestly seconded my efforts. The result is gratifying. At no time within my memory has the police force of this City attended so strictly to police business and kept so free from political work as during the past year. Individual officers naturally have their individual friends and individual preferences, and it is not to be expected that they will lose their attachment merely because they are policemen, but in the performance of their duties the police force as a whole has been lifted out of political partisan work, to the great satisfaction of the public and of the policemen themselves.

#### PAY ROLLS.

One effect of the operation of the Civil Service law caused me to discontinue the publication of the City pay rolls in the Council proceedings. All pay rolls go to the Civil Service Commission for certification before the Comptroller will approve them. As new men can not be placed in the service or upon the pay rolls, nor old men promoted, nor salaries or wages raised except upon the recommendation of the Commission and after examination, it is plain that the verification of the rolls by the Commission is an absolute check upon anything like pay-roll stuffing. The existence of this check seemed to me to render the further publication of the pay rolls with its attendant expense unnecessary.



## TAXATION.

A few months ago, at the suggestion of some public-spirited citizens, who agreed to guarantee the money for the work, I undertook to have some inquiry made into the assessment and the valuation of real estate in the business centre of the City. For the purpose of the investigation I appointed a commission of gentlemen who were singularly well equipped for the work and in whom the public had entire confidence, three of them being particularly acquainted with land values, and the other two men of large experience in building. The report of this commission has been recently made, and I submit their general statement. As expected, their work shows not merely how small the portion is between the actual valuation and the assessed valuation of the lands and improvements on the South Side north of Twelfth street, but what is more important it shows that there are glaring inequalities in assessments, and that much property is escaping its fair share of taxation. Primarily so far as local taxes are concerned, it does not matter whether the assessment be made upon the basis of full value or of some fraction of the full value, nor what that fraction may be, provided the basis be uniform and that all property be assessed fairly and uniformly with regard to it. The underlying purpose in the appointment of the commission, and in the work of the commission, was to bring to light these inequalities and this absence of uniformity. If much property in this City is escaping its fair share of the public burden, it is doubtless equally true that some is being taxed too much. The proper condition of the evil does not necessarily mean an increase of taxation. Property which is escaping taxation in whole or in part should be made to bear its fair share, and property assessed too much should have its assessment reduced. I believe that if all property liable to tax



and paying its fair share of the public revenue, the burden upon the average taxpayer would not be increased, and would quite probably be lessened.

The conspicuous inequalities in the assessment of real estate are well known to be more than equaled in the assessment of personal property. I have in mind the fact that the taxation of 1894 on the capital, surplus and undivided profits of banks in this City ranges from 1.88 to 0.38 per cent. I do not understand why there should be this difference of nearly five times the lowest rate; but manifestly there is something wrong in such a condition of things.

The suggestion has already been made to me to appoint a similar commission to investigate personal property assessments, and it is not unlikely that I shall appoint such a commission at an early date. It is not supposed that the work of the real estate commission or of the personal property commission, if one should be appointed, will materially affect either the assessment of property in this City at the present time or the revenue of the City, but the information contained in the report already made will be of great value, and particularly in connection with efforts that must necessarily be made at the next session of the General Assembly to secure amendments of the revenue law.

The expense of the work has been approximately \$10,000, and under the circumstances I think this expense should be borne by the City. Prompt provision should be made for its payment.

April 25, 1896.

on to report the market  
me South Division, north of  
et, beg leave to submit  
improvements, together  
property by the Assessor in

1895. In the detailed report, the valuation made by the commission and the valuation made by the Assessor will be found in parallel columns, a summary of which is as follows :

We find, in our opinion, value of land to be.....	\$ 337,342,880 00
Value of improvements to be .....	101,104,300 00
Total value (exclusive of property marked Exempt from Taxation) .....	<u>\$ 438,447,180 00</u>

The assessed value of the same property returned by the Assessor, for the year 1895, was as follows :

Land .....	\$ 24,726,880 00
Improvements .....	15,941,840 00
Total .....	<u>\$ 40,668,720 00</u>

We also find the value of land and improvements marked Exempt on the Assessor's books, not including the City Hall block or real estate owned by the United States Government, to be :

Land .....	\$ 20,404,050 00
Improvements .....	1,832,200 00
Total .....	<u>\$ 22,236,250 00</u>

We further find the value of railroad property in the above district listed as Railroad Right-of-way (exclusive of Illinois Central) to be..... \$ 24,615,700 00

We further find the value of real estate owned by railroads, exclusive of that listed as Right-of-way, to be ..... \$ 2,789,400 00

We find the value of land and improvements owned by the Illinois Central Railroad to be . \$ 35,180,560 00

Respectfully submitted,

JOSEPH DONNERSBERGER,  
EUGENE H. FISHBURN,  
DUNLAP SMITH,  
CHARLES W. GINDELE,  
GEORGE TAPPER,

*Commission.*

#### THE FINANCIAL PROBLEM.

The great problem always confronting the municipal government is the financial one. A revenue system, probably working fairly well in the smaller communities of this State, is utterly inadequate and impracticable for the requirements of



this great and growing City. Every mayor for years has called attention to the difficulties presented, and every mayor must continue to do so until some radical improvement is made. The township system of assessing and collecting the public revenue is not suitable for this County. No assessor can possibly make a just assessment under the conditions now existing. There must at all times be due regard for economy in administration, but no reasonable economy can possibly bring the necessary and desirable expenses of this City within its present limited income. Some matters have to be neglected or insufficiently provided for. Neglect is often expensive in the end, if not disastrous. An epidemic of smallpox might at any time follow an inadequate supply of funds for the Health Department. Parsimony and cheapness in government are undesirable. The people of this City must come to a fuller realization of the truth that if they wish their public affairs properly ordered and administered they must do their part. They must help the public servants and they can then rightfully hold them to a stricter accountability. The apathy of the average citizen regarding local public matters is sometimes startling. So long as his own affairs are progressing well and his interests are not directly injured he is content to feel that in some way public affairs will be attended to. Sooner or later this condition of things must end. Proper legislation must be had ; changes in the constitution, if necessary, must be made, and our people must take an active interest and participation in the work and the expense of giving to this City a system of revenue and of government and of public works worthy of its size and importance.

Yours respectfully,

GEORGE B. SWIFT,

*Mayor.*



# Department of Public Works, City of Chicago.

---

W. D. KENT,  
Commissioner.

JOHN A. MOODY,  
Deputy Commissioner.

S. P. BROWNE,  
Secretary.

J. J. GRAHAM,  
Assistant Secretary.

---

## Heads of Bureaus.

CITY ENGINEER, . . . . .	L. B. JACKSON
SUPERINTENDENT OF SEWERS, . . . . .	G. L. CLAUSEN
SUPERINTENDENT OF SPECIAL ASSESSMENTS, . . . . .	H. J. JONES
SUPERINTENDENT OF WATER BUREAU, . . . . .	J. C. CRAIG
SUPERINTENDENT OF STREET BUREAU, . . . . .	R. J. MACDONALD
SUPERINTENDENT OF MAP BUREAU, . . . . .	O. L. WULLWEBER
SUPERINTENDENT OF STREET AND ALLEY CLEANING, . . . . .	J. C. W. RHODE
DEPARTMENT BOOK-KEEPER, . . . . .	L. E. GOSSELIN



## PAST COMMISSIONERS OF PUBLIC WORKS.

### WATER BOARD.

- 1851-54—John B. Turner, Prest., Horatio G. Loomis, Alson S. Sherman.  
1854-56—Jas. H. Woodworth, Pres., John C. Haines, George W. Dole.  
1856-58—George W. Dole, Prest., Orrington Lunt, John C. Haines.  
1858-60—George W. Dole, Prest., Orrington Lunt, Noah Sturtevant.  
1860-61—Orrington Lunt, Prest., Edward Hamilton, Benjamin Carpenter.

### SEWERAGE BOARD.

- 1855-59—Wm. B. Ogden, Prest., James D. Webster, Sylvester Lind.  
1859-61—James D. Webster, Prest., Sylvester Lind, Philip Conley.

Water and Sewerage Boards merged May 6, 1861, into

### BOARD OF PUBLIC WORKS.

- 1861-63—Benjamin Carpenter, Prest., John G. Gindele, Frederick Letz.  
1863-65—Francis C. Sherman, Mayor, *ex-officio* member of the Board.  
1863-67—John G. Gindele, Prest., Frederick Letz, Orrin J. Rose.  
1867-69—Aug. H. Burley, Prest., Wm. H. Carter, John McArthur.  
1869-71—John McArthur, Prest., Wm. H. Carter, Redmond Prindiville.  
1865-69—Wm. Gooding and Roswell B. Mason, members of the Board in matters pertaining to the cleansing of the river.  
1869-71—Wm. Gooding and Edward B. Talcott, members of the Board in matters pertaining to the cleansing of the river.  
1871-73—Wm. H. Carter, Prest., Jas. K. Thompson, Redmond Prindiville.  
1873-76—Redmond Prindiville, Prest., Louis Wahl, Jas. K. Thompson.

Board of Public Works abolished September 18, 1876, and on the same date there was established by the City Council

### THE DEPARTMENT OF PUBLIC WORKS.

- 1876-78—Monroe Heath, Mayor, Acting Commissioner.  
January 7, to May 18, 1879—E. S. Chesbrough.  
May 19, 1879, to October 18, 1881—Charles S. Waller.  
October 19, 1881, to February 4, 1882—Carter H. Harrison, Mayor, Acting Commissioner.  
February 4, 1882, to January 31, 1886—DeWitt C. Cregier.  
February 1, 1886, to June 28, 1886—Carter H. Harrison, Mayor, Acting Commissioner.  
June 28, 1886, to April 11, 1887—W. H. Purdy.  
April 12, 1887, to April 15, 1889—George B. Swift.  
April 16, 1889, to April 27, 1891—W. H. Purdy.  
April 28, 1891, to December 24, 1892—J. Frank Aldrich.  
December 24, 1892, to April 25, 1893—E. Louis Kuhns, Acting Commissioner.  
April 25, 1893, to November 21, 1894—Hiram J. Jones.  
November 21, 1894, to November 28, 1894—John A. Moody, Acting Commissioner.  
November 28, 1894, to April 8, 1895—John McCarthy.

REPORT OF THE  
Commissioner of Public Works

CITY OF CHICAGO





# COMMISSIONER'S REPORT.

---

OFFICE OF THE COMMISSIONER OF PUBLIC WORKS, }  
CITY HALL. }

*To the Honorable, the Mayor and the City Council  
of the City of Chicago :*

GENTLEMEN:—In compliance with the ordinances of the City, I present herewith the Twentieth Annual Report of this Department.

Included in this report, which is for the year ending December 31, 1895, is a summary of the character and extent of the work performed by this Department during the past year. Those desiring further information on this subject are respectfully referred to the accurate and elaborate statistical reports of the Superintendents of the various bureaus.

At the outset, permit me to express my obligations to His Honor, the Mayor, for the lively interest he has manifested in the work executed and the reforms instituted by this Department. No effort has been spared to conduct the Department on business principles, in accordance with his well-known and frequently expressed views.

Allow me also to tender to the Council my cordial thanks for the uniform courtesy it has extended to me personally and officially.

It will be as agreeable to you, no doubt, as it is to me, to record the fact that the chiefs and employes of the various bureaus comprised in this Department are generally giving their best service to the City, and discharging their duties faithfully and efficiently. Although unreasonably criticised, for partisan purposes, in some quarters, the consciousness abides with them that their services, rendered intelligently and honestly, are recognized and appreciated by the public.

In a Department to which vast public interests are committed it is absolutely necessary, for the expeditious and economical transaction of the people's business, that order prevail ; that every employe be conversant with his duties and that he should understand that he can not shirk them in any way. Consequently, on assuming office, a system of time-keeping was inaugurated which resulted in a marked raising of the standard of punctuality and attention to work. It is not to be wondered at, therefore, that the service now is more satisfactory than formerly. The operation of the civil service law was in fact anticipated by this Department. Records of the employes are preserved, so that when a vacancy occurs, a worthy candidate for promotion can be selected. The system now in vogue is the same that prevails in all great manufacturing and commercial establishments. For the first time in the history of the City, the employes now feel that their retention in the public service depends solely on merit, and that promotion is attained only by strict attention to duty.

Firmly resolved that the interests of the taxpayers should have primary consideration in this Department, a system of retrenchment was established by which the expenditures were considerably reduced. Some salaries, regarded as extravagant for the services rendered, were reduced, and some employes who were not making an adequate return for their compensation were retired from the service of the City. This is not the only way in which the public interests have been conserved. It is a notorious fact that for many years the brick manufacturers were in a "combine," or trust, formed for the purpose of keeping the price of brick at a high figure. Although the City does not buy the brick direct from the makers, it suffered from this trust, as the contractors based their bids for public improvements on the rates they would have to pay for the brick. A year ago only the product of three brick yards was eligible for use in the public works. Specimens of other brick were obtained and several of these met all the requirements of the tests provided for in our specifications. These tests, which were thorough and searching, were made at the State University at Champaign. Now the bricks of ten manufacturers meet the requirements of the City. The consequence has been that the brick combination is disrupted, to the financial advantage of the City.

In this Department, the custom which had grown up of allowing "extras" to contractors has been practically abolished. None better understand this than the contractors themselves, and hence their proposals for work are now submitted with full knowledge of the



fact that there will be no "extras" and that they will be required to fulfill to the letter all the conditions of their agreements with the City. Heroic measures had to be taken in a few instances to convince some contractors that the provisions of a contract with the City meant just what they contained. To impress this information on them they have been required, when they failed to comply in every particular with the specifications, to undo their work, and at their own expense make it acceptable to the City. This was frequently a costly lesson, but it had the desired effect. Now no attempt is made to elude the provisions of a contract, for it is known that discovery will bring a penalty which none feel disposed to pay.

While economy has been practised the necessary public work has not been neglected nor curtailed. The extensive operations begun under this administration, with the completion of old enterprises, demonstrate that the public money has been expended judiciously and advantageously. No public improvement has suffered, notwithstanding the fact that more than \$200,000.00 pro rata of the appropriation had been expended during the first three months of the fiscal year. In this connection it might be noted that, during this administration, the Department was not only maintained within the appropriation, but at the close of the year a balance was turned into the City treasury. This policy of economy will be continued, and there is every reason to believe that the financial management of the Department during 1896 will be still more satisfactory.

It is a very sanguine man indeed who hopes that, in this City, public improvements will yet keep pace with private enterprise. That they are very far apart to-day is evident to a casual observer. As the reason for this condition of affairs is apparent, it is not necessary to dwell upon it here, especially as it will, in all probability, be discussed by the Chief Executive of the City. To indicate the efforts that are being made to meet the urgent demands for public improvements, reference might be made here to the tunnel which is now being constructed to give an additional supply of water to the north-western and southwestern sections of the City, and to the contemplated plans for sewerage what is known as the Eighty-third street district. The first, it is estimated, will cost \$2,500,000.00, and the latter \$1,300,000.00.

Annually, during the heated season, reports have been published of lack of water in various sections of the City remote from the lake, notwithstanding the great water system possessed by the City. Owing to the phenomenal growth of the City, the demand for an



additional water supply has been steadily increasing. It is expected that in the near future there will be no occasion for further complaints of this character. A scheme to relieve the west and north-west sections of the City is now on the way. When completed, it will be the means of affording an increased supply to all other parts of the City.

When the two pumping stations about to be constructed, one in the vicinity of Humboldt Park, and the other near Twelfth street west of Rockwell street, each with a capacity of 60,000,000 gallons per twenty-four hours, are in operation, the supply will undoubtedly be equal to the demand for some years to come. Contracts for the land tunnel were let last September. Satisfactory progress is being made with the work. The contract calls for the completion of the work on the first day of October, 1897.

Plans and specifications are now being made for the lake portion of the tunnel, and also for the pumping machinery at the stations. It is expected that work will be started about the 15th of June, 1896, on the lake portion of the tunnel. According to the contracts, the whole work is to be finished on or before January 1st, 1898.

A successful effort has been made to compel all trades which are required to obtain a license to comply with the ordinances. Last year 758 more plumbers' licenses were issued than during the preceding year. This brought an increase of \$2,725.00 to the City treasury. It is not thought that 758 more plumbers than the year before established business in Chicago. The increase in the receipts from this source is due to the fact that the ordinance relating to this branch of trade was impartially administered. There was no discrimination for or against anyone. All were treated justly. They were given to understand that the ordinance was not a dead letter and they cheerfully complied with it.

A special inspection of the entire City by the Water Bureau resulted in increasing the assessment on hose alone \$45,000.

The meter control of the water supply of the City should be extended immediately in view of the fact that last year an average of 146 gallons of water per capita per day was pumped. It is not to our credit that cities of less than one-fourth of our population should have more meters in service than there are in Chicago. In this City we have only 5,120 meters. There should be at least 50,000. This number of meters would not only largely increase the revenue but would tend to compel economy in the use of water by large consumers.

Plans had been prepared for draining the Eighty-third street sewer into the lake. It seemed strange that the drainage canal could not be utilized for this purpose, and thus avoid all possibility of polluting the source of the water supply in that section. The case, which was on the docket of the County Court, was stricken off, and then the Engineering Branch of the Bureau of Sewers was instructed to recast the plans, with the view of having the sewer empty into the drainage canal. At first those who were most directly interested in the drainage of this district objected to this action, on account of the delay that it would occasion, but, on consideration, they have given it their cordial and unqualified approval. Had not the plans of the sewer been changed, the drainage canal, for which the people have paid taxes, and which is being constructed at a cost of \$30,000,000.00, would be of no benefit to them whatsoever. Even in its sewerage system Chicago is unique and distinguished. As far as this Department is informed, this will be the most costly individual sewer in the world. It will drain a territory of ten square miles. This sewer will be of an L shape. It will extend from Seventy-fifth street to Eighty-seventh street, and from the Lake as far west as Albany avenue.

The main outlet sewer of the Washington Heights and West Roseland district along Wentworth avenue has been completed during the year. This sewer will drain all the territory west of State street and south of Eighty-seventh street.

The Indiana avenue sewer system will drain the territory lying south of Ninety-ninth street to the Calumet River, and between State street and the Illinois Central Railroad.

The West Forty-fifth avenue sewer, begins at Mud Lake, with a diameter of nine feet, and runs to Twelfth street; thence north on Forty-seventh avenue to Madison street; thence west on Madison to Forty-eighth avenue; thence to Hayes boulevard, with a branch start-at Forty-eighth and Grand avenues, and running thence northwest and west in Grand avenue and Fullerton avenue to the City limits. This sewer drains 4,200 acres of land, and its approximate length is eleven miles.

The six-foot sewer in Montrose boulevard, from the North Branch of the Chicago River west of Milwaukee avenue, is under contract.

It is the purpose of this Department to improve many streets during the coming year. Ordinances are now being drawn, which will be submitted at an early date, authorizing the improvement of at least four hundred streets. This work, judging by the experience of last

year, can be done for a reasonable amount. Owing to the fact that the Department succeeded in disrupting the various trusts, the competition for the City work was sharper than it had been for many years. The City reaped the benefit of this competition, for our paving last year was done at a lower figure than at any time since the incorporation of the City.

Knowing the financial condition of the City I hesitate making any suggestion that would lead to the expenditure of money that has not already been provided for by appropriation, but I cannot refrain from calling attention to the imperative necessity of supplying correct street signs. The names of a large number of the streets, as you are aware, have recently been changed, but the same old street signs are allowed to remain to mystify the public. Those signs now only serve to mislead the people. They should be removed without delay and their places supplied with new signs, which would probably cost not to exceed \$15,000.00.

## THE GROWTH OF CHICAGO.

### AREA.

	Square Miles.
After the sixth annexation, April 29, 1889.....	43.812
Part of Cicero, E. ½ Sec. 4 and 9, T. 39, R. 13, July 15, 1889.....	1.000
City of Lake View, July 15, 1889.....	10.408
Town of Jefferson (except Secs. 25, 35 and 36), July 15th, 1889.....	29.530
Town of Lake, July 15, 1889.....	36.000
Village of Hyde Park, July 15, 1889.....	49.132
Village of Gano, April, 1, 1890.....	1.773
South Englewood, May 12, 1890.....	2.899
Village of Washington Heights, Nov. 4, 1890.....	2.810
Village of West Roseland, Nov. 4, 1890.....	1.793
Village of Fernwood, April 7, 1891.....	0.981
Village of West Ridge, April 19, 1893.....	2.125
Village of Rogers Park, April 19, 1893.....	1.750
Village of Norwood Park, April 19, 1893.....	2.726
Fourteenth extension, part of Calumet, Feb. 25, 1895.....	1.000
Total area of the City of Chicago, Dec. 31, 1895.....	187.138

The extreme width of Chicago is now 14½ miles, and its extreme length, 26 miles.

The management of the Special Assessment Bureau, in all its branches, has been characterized by marked ability and economy.



The total receipts were \$3,761,689.45, of which the sum of \$3,022,937.06 was collected by the County Treasurer, and \$738,752.39 of which was collected by the City Collector and City Comptroller during the year.

The amount of special assessments levied and certified during the year 1895 was \$2,762,820.08, exclusive of the December and January rolls.

The total expenses were \$238,833.45, exclusive of amount paid to paving inspectors, which is chargeable direct to the warrant. Of this amount \$73,776.75 was spent during the last three months of the previous administration, and the remainder, \$132,433.42, during the nine months last past. These figures are exclusive of the cost of collection, which amounted to \$32,623.28 for the year. A comparison of these amounts shows that the average cost per month of the operation of the Bureau during January, February and March, under the last administration, was \$24,592.25, while during the last nine months, under the present administration, the average was \$14,714.82. This shows an average decrease of \$10,000.00 a month in round figures.

The amount paid paving inspectors during the year was \$39,346.00, a remarkable decrease over the preceding three years, which were as follows: 1892, \$76,015.95; 1893, \$120,294.05; 1894, \$87,460.51.

Following is the itemized statement:

### SALARIES.

	First three months from January 1 to April 1.	First nine months from April 1 to December 31.
Office Salaries .....	\$16,000 51	\$36,762 95
Sidewalk Department.....	3,820 87	14,996 28
General Inspectors.....	7,079 56	15,168 73
City Collector.....	7,797 50	3,151 00
Engineers .....	6,414 90	18,705 77
Comptroller's Office.....	900 00	2,405 50
	<u>\$42,013 34</u>	<u>\$91,190 23</u>
Total Salaries.....	\$133,203 57	

VOUCHERS.

	First three months from January 1 to April 1.	First nine months from April 1 to December 31.
Services as Commissioners .....	\$ 7,173 00	\$ 11,113 64
Legal Services .....	10,425 00	1,949 94
Court Costs.....	4,061 00	17,186 27
Expert Witnesses.....	5,883 95	5,781 21
Advertising .....	1,199 40	2,198 47
Cash Items .....	148 68	189 84
Books, Stationery, etc .....	2,872 38	2,823 62
	<u>\$ 31,763 41</u>	<u>\$ 41,243 19</u>
Total Vouchers .....		\$ 73,006 60
Cost of Collections .....		32,623 28
Total Expenses .....		<u>\$238,833 45</u>

In the following comparative statement of the expenses of the Special Assessment Bureau for the years 1892, 1893, 1894 and 1895, it will be noticed that there is an appreciable decrease in the cost of all branches of the assessment work in 1895 compared with the previous years. In the item of legal expenses, which amounted to \$12,374.94 for the year, \$10,425.00 was expended during the first three months, the remainder, \$1,949.94, being spread over the last nine months.

The following are the tabulated figures :

	1892.	1893.	1894.	1895.
Salaries clerks, engineers, rodmen.	\$159,315 36	\$174,055 62	\$142,733 50	\$133,203 57
Commissioners, making assessm'ts	33,510 75	24,333 50	29,609 60	18,286 84
Clerks of County Court .....	20,536 50	20,754 75	20,427 75	21,247 27
Expert services, real estate .....	17,654 30	29,110 85	20,767 75	11,665 16
Advertising .....	12,777 71	8,928 51	3,928 15	3,397 87
Legal expenses.....	4,595 45	6,275 96	6,850 00	12,374 94
Printing, stationery, car fare.....	3,689 87	5,398 12	4,595 50	2,950 00
Collecting assessments.....	57,948 56	66,891 27	44,777 83	32,623 28
Repairing sidewalks.....			5,187 94	
Clerk of Circuit Court.....		708 25		
Miscellaneous .....	6,960 45	3,248 63	6,846 11	3,084 52
Paving Inspectors.....	76,015 95	120,294 05	87,460 51	39,346 00
Total.....	\$393,004 90	\$460,049 51	\$363,134 64	\$278,179 45



Previous to the present administration, as you are aware, the rebates to property owners were enormously large, owing to the high standard adopted for cost. We at once made an average reduction of 21.7 per cent. in prices, as shown by the subjoined statement. As no standard had been adopted for brick pavement, no comparison appears. The reductions not only reduced rebates and brought the estimate very close to the price at which the work was let, but also reduced the receipts of the Bureau, as the 6 per cent. allowed for clerical work, engineering, etc., is based upon the entire estimate.

Following is the table of estimated prices :

CHARACTER OF IMPROVEMENTS.	PER SQUARE YARD.		
	Present Estimate.	Previous Estimate.	Decrease, per cent.
Asphalt .....	\$ 2 35	\$ 3 00	21.66
Cedar on plank .....	90	1 25	28.00
Cedar on macadam .....	1 15	1 40	16.30
Brick on concrete .....	2 00	....	....
Brick on macadam .....	1 70	....	....
Macadam (average 9 inches) .....	60	80	25.00
Macadam (average 12 inches) .....	80	1 20	33.33
Granite .....	2 90	3 50	17.00
Macadam, granite top (3 inches granite and 9 inches macadam) .....	1 10	1 70	37.00
	PER LINEAL FOOT.		
Limestone curb (5-inch stone) .....	\$ 0 75	\$ 0 90	16.67
Limestone curb (4-inch stone) .....	60	75	20.00
Bedford stone curb (5-inch stone) .....	75	90	16.67
Bedford stone curb (4-inch stone) .....	60	75	20.00
Sandstone curb (5-inch stone) .....	70	90	22.20
Sandstone curb (4-inch stone) .....	60	75	20.00
Limestone comb. C. and G. (18-inch gutter) .....	75	90	16.67
Granite comb. C. and G. (18-inch gutter) .....	85	1 00	15.00
Curb wall, ..... per cord, \$12.00 to \$14.00			



One of the drains on the fund known as Appropriation W, is the passage of ordinances by your Honorable Body, which are allowed to proceed, in many instances, until confirmed by court, and put into collection and then repealed, the entire cost of the work falling on the Bureau. This expense comes out of Appropriation W, and is a total loss. This matter, to which your attention has been already called, should receive the careful attention of your Honorable Body, and a stop put to the practice, as it involves a great drain on the Bureau funds. All warrants for the year 1895, drawn against Appropriation W, have been paid, and there is a sufficient sum to the credit of the fund in the treasury to meet those unpaid.

During the year, 91,121,532,749 gallons of water have been pumped into the City mains, an average of 251,839,816 gallons per twenty-four hours. Estimating the population at 1,725,000, this consumption is at the rate of 146 gallons per capita per day.

The total pumpage last year was 4,847,589,400 gallons in excess of the preceding year. The expense of all the stations for 1895 was \$30,130.22 less than for the preceding year.

The pumping stations are in good repair and fully equipped, with the exception of the Chicago Avenue and Lake View stations, where new engines are required.

The City is drawing all its water through four tunnels, the first of which was commenced in 1864. The total length of all is 105,800 lineal feet, or a little over 20 miles.

### NEW LAND TUNNELS.

To feed these stations with water, a new Lake tunnel, with attending land ramifications, is necessary, contracts for the construction of which have been let during the year and the work of construction begun.

#### SECTION ONE.

Section One of this tunnel begins at the foot of Oak street, on Lake shore and extends to the intersection of North Green street and Grand avenue on the West Side, a distance of about 8,500 feet, with an inside diameter of ten feet.

#### SECTION TWO.

Section Two is an extension of Section One in a southwesterly direction to the proposed pumping station west of Rockwell Street, with an inside diameter of eight feet. Up to the end of the year, 232 lineal feet of this tunnel had been constructed.





NORTH SHORE EXTENSION TUNNEL.  
INTAKE PROTECTION.



## SECTION THREE.

Section Three is a branch tunnel of eight feet inside diameter, extending from the junction of Sections One and Two northwesterly to the proposed pumping station in the vicinity of Humboldt Park. The work of construction on this branch has been begun.

## TUNNEL AND CRIB CONSTRUCTION.

## LAKE VIEW TUNNEL.

An interesting review of the work on this tunnel, now practically completed, will be found in the Engineer's report.

## NORTH SHORE INLET EXTENSION.

The shore tunnel, extended in 1891 to the northwest end of the United States exterior breakwater, has been practically useless, owing to the proximity of the intake to the shore. It was decided to extend it to the two-mile crib, and the contract for such extension has been let. Up to the end of the year, 1,344 lineal feet of this tunnel had been built.

## HYDE PARK BREAKWATER.

The outer Hyde Park crib, rendered unsafe by the ice of the last two winters, has been protected by an hexagonal breakwater thirty feet wide, according to new plans, omitting the opening for the admittance of water, and constructing in lieu thereof ports through four of the six sides forming the breakwater.

This structure during the past winter has demonstrated its efficiency, reducing the danger of ice blockades to a minimum, and causing a saving to the City for tug-boat hire and salaries of about \$3,000 per month during the winter season.

## WATER PIPE EXTENSION.

There were laid during the year 350,405 feet of mains, of the following dimensions :

4-inch.....	1,428 feet.
6-inch.....	203,645 "
8-inch.....	92,952 "
12-inch.....	17,618 "
16-inch.....	1,177 "
24-inch.....	28,198 "
36-inch.....	2,687 "

## Pipe taken up and relaid during the year :

6-inch.....	563 feet.
8-inch.....	5,171 "
12-inch.....	5,599 "

## HYDRANTS.

Seven hundred new hydrants were placed during the year, making the total number in use at the close of 1895, 16,466.

## STOP-VALVES.

Stop-valves put in during the year . . . . .	477
Total number in at the close of the year.....	12,073

## HYDRANT AND STOP-VALVE BASINS.

Brick hydrant and stop-valve basins to the number of 1,679 were built during the year, and 81 composition basins were placed during the same period.

## DIVISION OF BRIDGE AND VIADUCT CONSTRUCTION.

## VAN BUREN STREET BRIDGE.

This structure was completed and formally opened for traffic February 4, 1895. Its total cost was \$169,700.00.

## WEST VAN BUREN STREET VIADUCT.

This work consisted of the rebuilding of the upper portions of the old abutments and the placing of the new viaduct of steel girders. Its cost was \$7,644.30.

## FULLERTON AVENUE BRIDGE.

This bridge spans the North Branch of the Chicago River. It was formally opened for traffic October 20, 1895. It has a permanent concrete and masonry centre pier, founded on solid rock, with the usual pile and timber protection, pile abutments and trestle bent approaches. The superstructure is the ordinary Pratt truss construction. Total cost, \$26,752.67.

## DIVERSEY AVENUE BRIDGE.

This bridge spans the North Branch and is similar in all respects to the Fullerton avenue bridge, except that the superstructure is nearly twenty feet longer and the centre pier is founded on piles. Cost, \$32,000.00.

## WELLS STREET VIADUCT.

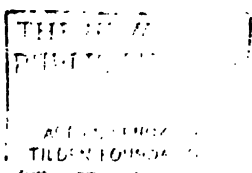
Plans are prepared for this structure which is to be rebuilt by the Northwestern Elevated Railway Company, and to be paid for by that company and the Chicago & North-Western Railway Company.





DIVERSEY BOULEVARD BRIDGE.





## WELLS STREET BRIDGE.

This bridge is to be remodeled. The work will amount to a practical rebuilding of it. The expense is to be borne by the Northwestern Elevated Railway Company.

## NORTH HALSTED STREET BRIDGE.

Plans are prepared, and contract for the structure has been awarded. The bridge is to be completed September 1st, 1896.

## NEW BRIDGES AND VIADUCTS NEEDED.

There is urgent need for new bridges and viaducts at the following points:

1. Kinzie street, North Branch.
2. North avenue, North Branch.
3. Division street, Ogden Canal.
4. Polk street, South Branch.
5. Western avenue, west fork of South Branch.
6. California avenue, west fork of South Branch.
7. Archer avenue, south fork of South Branch.
8. Chittenden avenue, Calumet River.
9. Kedzie avenue, I. & M. Canal (fixed span).
10. Canal and Sixteenth streets (viaduct).

## BRIDGE AND VIADUCT MAINTENANCE.

The expense incurred in the maintenance of all bridges and viaducts for the year 1895, including labor, materials, supplies, etc., has been \$148,936.28.

## HARBORS OF THE CITY.

Material removed from the Chicago River and its branches during the year amounted to 117,414 cubic yards, costing \$17,138.40.

There was also 387,800 cubic yards of private dredging done during the year.

Work on the west fork (or the Lawndale branch) of the South Branch, under the order of the Council passed May 29, 1893, has progressed. Three thousand three hundred and sixty-nine cubic yards of material were taken out in 1895 at a cost of \$13,139.10. There yet remains to be blasted and dredged 24,000 cubic yards of rock to make the waterway available, for which an appropriation of \$94,500 would be necessary.

## COMMERCE BY THE LAKE.

A comparison of the number of vessels entered and cleared during the year with those of other cities and ports will disclose the magnitude of the Lake commerce.

Chicago River entered 7,637 vessels.....	4,602,508 tons
Calumet River entered 1,404 vessels.....	1,682,003 tons
<u>Total.....</u>	<u>9,041 vessels.....</u>
	6,284,511 tons
Chicago River cleared 7,687 vessels.....	4,585,831 tons
Calumet River cleared 1,504 vessels.....	1,760,838 tons
<u>Total.....</u>	<u>9,191 vessels.....</u>
	6,346,660 tons

A Treasury report dated June 30, 1895, shows total arrivals and clearances at the several points named, as follows :

Baltimore .....	3,992
Boston .....	5,884
New Orleans .....	2,364
Philadelphia .....	3,831
San Francisco .....	2,515
	<hr/>
	18,586
New York .....	13,853
Chicago .....	18,575

These figures disclose the fact that the entrances and clearances for the harbors of Chicago equaled those of Baltimore, Boston, New Orleans, Philadelphia and San Francisco combined, and were greater than those of New York by 4,722, for the same period of time.

The following figures show a comparison of the tonnage with that of the year 1894 :

	1894	1895
Clearances .....	5,447,273 tons	6,346,699 tons
Arrivals.....	5,424,171 tons	6,284,511 tons
	<hr/>	<hr/>
Totals .....	10,871,444 tons	12,631,210 tons

## STREET AND ALLEY IMPROVEMENTS.

## STREETS AND ALLEYS.

During the year 42.48 miles of streets and 5.27 miles of alleys, a total of 47.75 miles, were paved.

Streets curbed and filled, 6.03 miles.

The introduction of vitrified brick on Milwaukee avenue and of sheet asphalt on Madison street, from Jefferson street to Center avenue, marks a new departure in street paving in Chicago. The



heavy traffic on these streets will afford a thorough test of the durability of these materials and demonstrate the advisability of continuing their use in business districts.

It is suggested that when a street is ordered to be improved, upon which substantial sidewalks are needed, the ordinance be drawn providing for all improvements necessary between lot lines.

#### SIDEWALKS.

During the year 94.45 miles of plank sidewalk, 88.81 miles of concrete walk, and 1.35 miles of stone walk were constructed ; a total of 184.61 miles.

4.70 miles of stone and 11.81 miles of concrete walks were constructed by the various Park Boards.

Thus the grand total for the year is 201.12 miles.

#### FINANCIAL.

Amount paid Contractors for Street Improvements by Special Assessments.....	\$ 1,026,202 45
For Sidewalks built by the Bureau under Special Assessment....	50,817 91
For Re-paving and Repairing Improved Streets .....	267,671 89
For Grading, Ditching, Building and Repairing Aprons, Culverts, Crossings, etc., on Unimproved Streets.....	143,696 30
For Sidewalk, General Repairs and Intersections.....	106,211 11
For City Parks .....	9,361 96
For New and Repaired Street Lamps and Signs.....	63,397 24
Grand Total .....	\$ 1,667,358 95

#### WATER OFFICE.

##### COLLECTIONS.

The net receipts of this office from all sources amounted to \$3,215,137.10. A further sum of \$25,352.86 is properly creditable to this year's business, the same having been paid out by drawbacks from this year's collections for vacancies occurring during 1894, as provided for in the ordinance of January 14, 1895, making a total of \$3,240,489.06. These figures show an actual increase in the collections of 1895 over 1894 of \$230,230.04.

Taking in connection with this the fact that during the first four months of 1895 the meter earnings ran behind the earnings of the same period of 1894, \$53,878.76, and that the assessed rates collections fell off \$79,864.71, a very favorable showing is made.

Meter collections increased during the last eight months of the year \$45,685.68 over those of the same period in 1894. The increase in the number of meters in service has been 296.

#### TOWN OF LAKE OFFICE.

This, the last of the sub-offices, has been discontinued, and the work of that district consolidated with that of the remainder of the City in the main office. This action has resulted in much better control of the detail of the district, in a general revision of the old-fashioned systems in use, and in a reduction of the operating expenses.

It was also discovered that this section had not been inspected for several years, and an immediate re-assessment resulted in an increased revenue from this district of over \$40,000.

#### AMENDMENTS TO ORDINANCE.

The effect of the amended ordinance, passed July 11th, to provide a separate period for the payment of water taxes in each division of the City, has been to lessen the crowded and congested condition of the office during the last few days of the terms, as well as in relieving the force of a large share of the extra work and spreading it over a longer period.

#### SERVICE PIPES.

During the year 5,357 service pipes were laid, at an average cost of \$11.73, a saving to the property owners of \$6.05 per pipe over the cost of those laid in 1894, making a total saving to the people of \$32,409.31.

#### PLUMBERS' LICENSES.

Plumbers' licenses to the number of 758, at a profit to the City of \$18,200.00, as against 619 in 1894 for which \$15,475.00 was paid, were issued; a net increase of \$2,725.00.

#### INSPECTION DEPARTMENT.

By a special inspection of the entire City, this branch of the Bureau increased the assessment on hose alone \$45,000.00, in addition to the increase of over \$40,000.00 in the Town of Lake.



Following is a table showing, among other things, the appropriations for Public Works from 1888 to 1894, increase of population and area during the same period, and other matters of interest connected with the work of the Department:

YEAR.	Appropriation.	Expenses.	Square Miles of Territory.	Census.
1888 .....	\$1,942,495 65	\$2,057,422 79	37	802,651
1889 .....	2,317,291 20	2,220,365 30	37	880,000
1890 .....	2,581,445 20	2,492,808 45	100	1,208,669
1891 .....	2,429,644 05	2,929,431 47	180	1,350,000
1892 .....	2,597,148 17	2,508,771 98	180	1,438,010
1893 .....	2,703,175 36	2,845,571 38	186.2	1,500,000
1894 .....	1,979,863 85	2,220,321 43	186.2	1,600,000
1895 .....	2,026,568 53	2,024,542 06	186.2	1,725,000

YEAR.	Number of Miles of Paved Streets.	Number of Miles of Unimproved Streets.	Cost of Cleaning and Repairing Improved and Unimproved Streets.	Amount of Appropriation per Square Mile of Territory.	Amount of Appropriation per Capita.	Cost per Mile of Cleaning and Repairing Improved and Unimproved Sts.
1888 .....	348	314	\$345,204 69	\$52,499 88	\$2 42	\$521 45
1889 .....	348	314	477,866 65	62,629 49	2 63	721 85
1890 .....	669	1,567	583,468 69	14,341 36	2 13	260 94
1891 .....	774	1,559	803,171 02	13,498 02	1 79	344 26
1892 .....	879	1,493	896,017 02	14,428 60	1 80	377 74
1893 .....	1,007	1,459	999,558 58	14,494 23	1 80	405 33
1894 .....	1,086	1,400	696,627 99	10,615 89	1 23	280 22
1895 .....	1,123.54	1,406.63	681,234 06	10,883 82	1 17	269 24

Of the 1,123.54 miles of pavement 104.52 are alleys, but in the total mileage of 2,530.17 miles are treated as streets.



## EXTENSION OF WATER SYSTEM.

66.36 miles of water pipe, from four to thirty-six inches in diameter, were laid during the year (.77 miles being exchange), making a total of 1,612.37 miles now laid in the City.	
477 new valves were added; total in place.....	12,073
700 new fire hydrants were added; total in place.....	16,466
Total number of fire cisterns.....	98
*12,811 new house service taps were added; making total....	233,792
*12,811 new house service pipes were added; making total....	233,792
The number of service taps inserted in water mains, including retaps and taps inserted for enlarged service pipes to buildings previously supplied, is.....	13,990

## STREET IMPROVEMENTS.

There were 47.75 miles of streets improved during the past year.

There were 181,316 square yards of street pavement repaired.

Total streets in the City.....	2,530.17 miles
Total streets paved in the City.....	1,123.54 miles
New sidewalks constructed.....	184.61 miles
Sidewalks repaired.....	3.26 miles
Total sidewalks in the City.....	4,624.85 miles
Streets cleaned (under contract).....	6,132 miles
Number of aprons, culverts, crossings, etc., built.....	4,773
Sidewalk intersections constructed.....	1,327
Number of street lamps (gas).....	37,853
Number of street lamps (oil and gasoline).....	11,673
Number of street lamps (electric).....	1,617
Total number of street lamps in the City.....	51,143
Number of buildings removed.....	1,150

## MAPS AND PLATS MADE.

For street improvement assessments.....	436
For opening, widening and vacating streets and alleys.....	304
For sidewalks.....	950
For Street Engineer's estimates.....	710
For lamp posts.....	1,071
For surveys.....	132
For Law Department.....	720
For water pipe assessments.....	194
For miscellaneous purposes.....	151
Total.....	4,668

## MISCELLANEOUS.

## SPECIAL IMPROVEMENTS.

Furnishing pumping engines.  
 Furnishing cast-iron water pipe.  
 Furnishing rings and covers for hydrant chambers.  
 Furnishing special castings for hydrants and stop valves.  
 Furnishing composition hydrant basins.  
 Furnishing composition valve basins.  
 Furnishing special castings for water pipe.  
 Furnishing manhole and catch-basin covers.  
 Furnishing corporation ferrules.  
 Furnishing lumber.  
 Constructing new water tunnel (land).  
 Constructing north shore inlet extension.  
 Constructing Fullerton avenue bridge.  
 Constructing Diversey avenue bridge.  
 Constructing Van Buren street viaduct.  
 Constructing air lock Western avenue tunnel.  
 Constructing dams at Bridgeport lock.  
 Constructing isolation hospital.  
 Constructing fire engine house, Maryland avenue.  
 Constructing breakwater, Sixty-eighth street crib.  
 Constructing pile outlet, Belmont avenue sewer.  
 Constructing pile outlet, Seventy-third street sewer.  
 Constructing pile outlet, Fifty-first street sewer.  
 Paving approach to Fullerton avenue bridge.  
 Boring for new water tunnel.  
 Boring for sewers.  
 Removing dead animals.  
 Repairing breakwater, four-mile crib.

## CONTRACTS.

1 Contract for pumping engines, aggregating .....	\$ 275,668 00
4 Contracts for furnishing cast-iron water pipe, aggregating .....	145,649 54
1 Contract for substructure, Fullerton avenue bridge, aggregating .....	12,404 00

1 Contract for superstructure, Fullerton avenue bridge, aggregating .....	\$ 11,596 12
1 Contract for Van Buren street viaduct.....	6,790 78
1 Contract for substructure, Diversey avenue bridge, aggregating .....	15,000 00
1 Contract for superstructure, Diversey avenue bridge, aggregating .....	15,000 00
1 Contract for rings and covers for hydrant chambers, aggregating .....	1,822 19
1 Contract for special castings, hydrant and stop-valves, aggregating.....	2,822 89
1 Contract for composition hydrant basins, aggregating .....	634 10
1 Contract for composition valve basins, aggregating .....	.....
1 Contract for special castings, for water pipe, aggregating .....	5,208 90
1 Contract for air lock, Western avenue tunnel, aggregating .....	2,357 17
1 Contract for dams, at Bridgeport lock, aggregating .....	1,363 87
1 Contract for paving approach to Fullerton avenue bridge, aggregating .....	1,282 45
1 Contract for boring for tunnel, aggregating.....	4,336 05
1 Contract for extension of north shore inlet tunnel, aggregating .....	105,000 00
3 Contract for land tunnel, aggregating.....	1,100,000 00
1 Contract for repairing breakwater, at four-mile crib, aggregating.....	573 90
1 Contract for constructing breakwater at Sixty-eighth street crib, aggregating.....	99,724 92
2 Contracts for dredging, aggregating.....	17,138 60
12 Contracts for tug service, aggregating.....	6,199 56
8 Contracts for coal for pumping stations, aggregating .....	89,307 83
1 Contract for constructing isolation hospital, aggregating .....	112,011 00
1 Contract for plumbing, isolation hospital, aggregating .....	5,315 00
1 Contract for outside sewerage, isolation hospital, aggregating .....	1,999 00



1 Contract for steam heating, isolation hospital, aggregating .....	\$ 9,425 00
1 Contract for constructing fire engine house (Maryland avenue) aggregating .....	4,794 11
4 Contracts for teaming, aggregating .....	52,789 25
8 Contracts for lumber, aggregating .....	8,206 41
98 Contracts for constructing sewers, aggregating ..	311,783 99
23 Contracts for laying private drains, aggregating ..	11,571 40
1 Contract for manhole and catch-basin covers, aggregating .....	3,147 74
1 Contract for pile outlet, Belmont avenue sewer, aggregating .....	1,500 00
1 Contract for pile outlet, Seventy-third street sewer, aggregating .....	1,645 00
1 Contract for pile outlet, Fifty-first street sewer, aggregating .....	4,500 00
1 Contract for boring sewer, aggregating .....	591 75
190 Contracts for improving streets and alleys, aggregating .....	1,113,025 21
3 Contracts for repaving streets, aggregating .....	267,671 89
108 Contracts for laying water service pipes, aggregating .....	36,111 12
2 Contracts for corporation ferrules, aggregating ..	4,826 93
26 Contracts for removing garbage, etc. ....	.....
1 Contract for sweeping and cleaning streets .....	.....
1 Contract for removing dead animals .....	.....

## WATER SUPPLY SYSTEM.

This system, as shown by the City Engineer's report, makes the present nominal engine capacity, as follows:

Lake View pumping station, 31,500,000 gallons per 24 hours.
North Side pumping station, 99,000,000 gallons per 24 hours.
Central pumping station, 36,000,000 gallons per 24 hours.
14th street pumping station, 54,000,000 gallons per 24 hours.
West Side pumping station, 60,000,000 gallons per 24 hours.
68th street pumping station, 77,000,000 gallons per 24 hours.

Total..... 357,500,000 gallons per 24 hours.

All these engines draw their water from the lake through tunnels. There are, besides, small pumping stations at Washington Heights and Norwood Park, which draw their water from artesian wells.

## TUNNELS.

The nominal tunnel capacity is as follows:

Lake View tunnel.	72,000,000 gallons per 24 hours.
Two-mile tunnels.	150,000,000 gallons per 24 hours.
Four-mile tunnel.	140,000,000 gallons per 24 hours.
68th street tunnel.	122,000,000 gallons per 24 hours.
Total.....	484,000,000 gallons per 24 hours.

There is, besides, one emergency or shore inlet tunnel, opposite the North Side pumping station, now being extended to two-mile crib.

## PIPE SYSTEM.

Water pipes were laid during the year as follows:

Four (4) inch .....	4,128 feet.
Six (6) inch .....	203,645 feet.
Eight (8) inch .....	92,952 feet.
Twelve (12) inch .....	17,618 feet.
Sixteen (16) inch .....	1,177 feet.
Twenty-four (24) inch .....	28,198 feet.
Thirty-six (36) inch .....	2,687 feet.
Total .....	350,405 feet.

The whole being equal to 66.36 miles. Small pipe taken up or abandoned, 0.75 miles; net pipe added to the system during the year, 65.61 miles—making a total of 1,612.36 miles of water mains laid within the City limits.

Fire hydrants placed in position during the year.	700
Net number of hydrants added to the system....	695
Total number of fire hydrants now in use.....	16,466
Stop valves put in place during the year .....	477
Net number of valves added to the system.....	476
Total number now in use.....	12,073

## WATER METERS AND HYDRAULIC ELEVATORS.

Number of new meters put in during the year 1895.....	429
Number of old meters removed.....	49
Net increase.....	380
Total number of meters now in use.....	5,120
Total number of meters repaired.....	2,483
Number of City meters removed and replaced by new ones....	1

The revenue derived from water measured by these meters and hydraulic elevators for the past year amounted to \$1,004,203.48.

The following table shows the quantity of water furnished, the total revenue received, and the average amount per million gallons annually, from 1858 to 1895, inclusive :

YEAR	Million Gallons Furnished	Revenue	Revenue per Million Gallons
1858.....	1,092	\$102,178 85	\$93 57
1859.....	1,415	122,753 50	86 75
1860.....	1,717	131,162 73	76 39
1861.....	1,767	131,035 10	74 15
1862..... (15 months).....	2,705	188,448 25	69 66
1863.. (9 months).....	2,336	192,246 39	82 29
1864.....	2,523	224,902 57	89 14
1865.....	2,778	253,114 49	91 11
1866.....	3,169	302,017 59	95 30
1867.....	4,232	338,929 28	80 08
1868.....	5,375	420,686 94	78 26
1869.....	6,801	476,968 24	70 13
1870.....	7,945	539,180 19	67 86
1871.....	8,423	445,834 64	52 93
1872.....	10,051	544,465 90	54 17
1873.....	11,723	708,804 32	60 46
1874.....	13,903	705,926 64	50 77
1875..... (9 months).....	10,957	635,996 54	58 04
1876.....	15,346	771,940 38	50 30
1877.....	19,047	908,509 64	47 70
1878.....	19,564	944,190 97	48 26
1879.....	20,558	922,001 26	44 85
1880.....	21,003	865,618 35	41 21
1881.....	23,332	936,922 07	40 16
1882.....	24,151	1,049,576 90	43 46
1883..	26,742	1,142,868 54	42 73
1884.....	29,286	1,204,338 74	41 12
1885.....	33,451	1,339,038 00	40 03
1886.....	35,693	1,374,837 32	38 52
1887.....	37,199	1,490,023 68	40 05
1888.....	38,122	1,557,116 78	40 84
1889.....	40,504	1,621,786 34	40 04
1890.....	55,614	2,202,724 58	39 61
1891.....	63,552	2,364,463 09	37 21
1892.....	71,035	2,738,434 10	38 55
1893.....	86,298	2,949,548 87	34 18
1894.....	87,074	3,158,492 94	36 27
1895.....	91,922	3,318,483 85	36 20



## SEWERAGE.

The sewerage system has been extended in the various divisions of the City during the year, as follows :

Constructed in the West Division.....	10.598 miles
Constructed in the South Division.....	17.453 miles
Constructed in the North Division.....	9.136 miles

Total ..... 37.187 miles

Number of catch-basins built..... 1,515

Number of manholes built..... 1,409

The cost of constructing sewers and catch-basins during the year was as follows :

West Division.....	\$ 62,829.48
South Division.....	234,459.41
North Division.....	59,651.12
	<u>\$ 356,950.01</u>

Total number of catch-basins..... 43,583

Total number of manholes..... 46,164

Total number of miles of sewer in the City..... 1,248.438

## MAINTENANCE OF SEWERS.

The cost of cleaning and repairing sewers, the cost per mile, and number of miles, also the number of catch-basins and manhole chambers distributed in the three divisions of the City, are as follows :

DIVISION.	MILES OF SEWER.	NUMBER OF CATCH-BASINS.	NUMBER OF MANHOLE CHAMBERS.
West.....	529.822	19,138	18,910
South.....	487.280	16,596	18,295
North .....	231.336	7,849	8,959
Totals.....	1,248.438	43,583	46,164

The cost of repairing sewers during the year was \$52,665.38, being an average cost of \$42.18 per mile.

The cost of cleaning was \$134,424.44, making the average cost \$107.67 per mile.

The total cost of both repairs and cleaning was \$187,079.82, making an average of \$149.85 per mile.

Of the 37.187 miles of sewers constructed during the year, 6.321 miles are of brick and 30.866 miles of vitrified pipe.

Of the 1,248.438 miles of sewers constructed, 482.769 miles are of brick and 765.669 miles are of vitrified pipe.

#### TOTAL COST OF SEWERS.

DIVISIONS.	MILES.	COST.	AVERAGE COST PER MILE.
West .....	529.822	\$ 7,137,793 24	\$13,472 06
South .....	487.280	6,926,666 08	14,214 96
North .....	231.336	2,875,225 34	12,428 77
Totals.....	1,248.438	\$16,939,684 66	\$13,568 70

During the year 1895 streets were improved as follows:

Paved with cedar blocks.....	28.62 miles.
Paved with macadam.....	9.35 miles.
Paved with granite blocks.....	1.16 miles.
Paved with Medina stone.....	.... miles.
Paved with brick.....	2.86 miles.
Paved with asphalt.....	5.76 miles.
Curbed and filled.....	6.03 miles.

Total number of miles improved..... 53.78 miles.

#### DISTRIBUTION OF KINDS OF PAVEMENT.

The following table gives the mileage of each class of pavement in use in the three principal divisions of the City:

DIVISION.	Cedar Block, Miles.	Macadam Miles.	Medina Stone, Miles.	Granite, Miles.	Sheet Asphalt, Miles.	Block Asphalt, Miles.	Brick, Miles.	Burned Clay, Miles.	Found'n, Miles.	Total Miles.
North .....	157.66	57.89	0.49	0.10	5.03	.....	0.64	.....	1.08	222.89
South.....	201.23	254.08	1.61	19.99	5.86	3.59	1.92	.....	.....	488.28
West... ..	367.12	20.17	0.39	3.22	19.86	.....	1.61	.....	.....	412.37
Totals .....	726.01	332.14	2.49	23.31	30.75	3.59	4.17	.....	1.08	1123.54

Repaving and repairs have been made on improved streets in each division of the City, as follows :

North Division..... 50,376 square yards.  
 South Division..... 64,273 square yards.  
 West Division..... 66,667 square yards.  
 \*Total.....181,316 square yards.

### SIDEWALKS.

Number of miles of wood, stone and concrete sidewalks built during 1895 :

DIVISION.	MATERIAL.			Total Miles.	Sidewalks Repaired, Miles.	Total Work, Miles.
	Wood, Miles.	Stone, Miles.	Concrete, Miles.			
North.....	9.98	.10	29.86	39.94	.28	40.22
South.....	47.90	.74	35.68	84.32	1.98	86.30
West .....	36.57	.51	23.27	60.35	1.00	61.35
Totals.....	94.45	1.35	88.81	184.61	3.26	187.87

Total number of miles of sidewalks under the control of the City and the South, West and Lincoln Park Commissioners, at the close of the year :

CONTROLLED BY.	MATERIAL.			Total Miles.
	Wood.	Stone.	Concrete.	
City .....	3,749.30	230.50	527.00	4,506.80
South Park Commissioners.....	.....	20.00	30.00	50.00
West Park Commissioners.....	.....	11.05	50.70	61.75
Lincoln Park Commissioners.....	.....	2.17	4.13	6.30
Total Miles.....	3,749.30	263.72	611.83	4,624.85

\*This does not include the repaving done by private corporations.



## PARKS.

The cost of maintaining the various parks under the control of this Department during the past year was as follows :

Jefferson Park.....	\$ 168 70
Congress Park.....	550 50
Oak Park.....	486 50
Lakewood Park.....	156 25
Green Bay Park.....	422 80
Washington Park.....	3,212 12
Shedd's Park.....	146 07
Douglas Monument Square.....	998 50
Aldine Square.....	946 13
Bickerdike Square.....	810 65
Gross Park.....	436 25
Ellis Park.....	920 75
Total.....	\$9,255 22

The report of the Commissioner of Buildings shows that during the year 8,633 buildings were erected, extending over an aggregate frontage of 218,360 feet, at a cost of \$35,000,000.00, the same being distributed in the divisions of the City as follows :

DIVISION.	NUMBER BUILDINGS ERECTED.	AGGREGATE FRONTAGE IN FEET.	FRONTAGE IN MILES.	ESTIMATED VALUE. .
North Side.....	1,863	46,149	8.74	\$ 6,674,165 00
South Side.....	3,551	91,085	17.25	16,652,265 00
West Side.....	3,219	81,126	15.37	11,683,613 00
Totals.....	8,633	218,360	41.36	\$35,010,043 00

## COMPARISON WITH TEN PREVIOUS YEARS.

YEAR.	NUMBER BUILDINGS ERECTED.	AGGREGATE FRONTAGE IN FEET.	FRONT- AGE IN MILES.	ESTIMATED VALUE.
1885.....	4,638	108,850	20.62	\$19,624,100 00
1886.....	4,664	112,802	21.27	21,324,400 00
1887.....	4,833	115,506	21.88	19,778,100 00
1888.....	4,958	116,419	22.05	20,360,800 00
1889.....	4,931	119,573	22.65	25,065,500 00
1890.....	11,608	266,284	50.43	47,322,100 00
1891.....	11,805	282,672	53.54	54,201,800 00
1892.....	13,194	327,573	62.04	64,740,800 00
1893.....	8,359	216,893	41.07	28,708,750 00
1894.....	9,855	232,487	44.03	33,863,570 00
1895.....	8,633	218,360	41.36	35,010,043 00
Totals .....	87,478	2,116,919	400.94	\$369,999,963 00

## HOUSE MOVING.

Under the supervision of this Department, 1,150 buildings were moved, 931 being frame, 202 brick, and 17 iron.

The following table gives the number moved in the different sections of the City, the height, and the total frontage :

NORTH SIDE.	SOUTH SIDE.	WEST SIDE.	TOTAL.
350	327	473	1,150
ONE STORY.	TWO STORIES.	THREE STORIES.	FOUR STORIES.
508	579	57	6

The total frontage was 24,231 feet, or more than five miles.

## ASSESSMENTS PREPARED.

Cedar block pavement .....	101
Asphalt pavement .....	19
Macadam pavement .....	25
Vitrified brick pavement .....	7
Granite pavement .....	5
Miscellaneous street and alley improvements .....	57
Openings and widenings .....	9
Water supply pipes .....	277
Water service pipes .....	99
Sewers .....	114
Private drains .....	92
Plank sidewalks .....	244
Cement sidewalks .....	104
Stone sidewalks .....	7
Gas lamp posts .....	171
Boulevard lamp posts .....	59
Gasoline lamp posts .....	2
Total .....	<hr/> 1,392



## STREET LAMPS.

The following table shows the number of street lamps of each kind in use, and the number erected during the year:

DIVISION.	GAS LAMPS.				ELECTRIC LAMPS.			
	No. in City Jan. 1, 1896.	Erected during 1896.	Discontin- ued in 1896.	No. in City Dec. 31, 1896.	No. in City Jan. 1, 1896.	Erected during 1896.	Discontin- ued in 1896.	No. in City Dec. 31, 1896.
North .....	6,693	586	153	7,126	237	.....	.....	237
South .....	11,942	1,136	612	12,466	726	120	.....	846
West .....	17,573	975	294	18,254	521	13	6	528
Totals .....	36,208	2,697	1,059	37,846	1,484	133	6	1,611
DIVISION.	GASOLINE LAMPS.				OIL LAMPS.			
	No. in City Jan. 1, 1896.	Erected during 1896.	Discontin- ued in 1896.	No. in City Dec. 31, 1896.	No. in City Jan. 1, 1896.	Erected during 1896.	Discontin- ued in 1896.	No. in City Dec. 31, 1896.
North .....	1,333	48	148	1,233	.....	.....	.....	.....
South .....	5,218	741	768	5,191	191	8	.....	194
West .....	5,310	319	744	4,885	.....	.....	.....	.....
Totals .....	11,861	1,108	1,660	11,309	191	3	.....	194

## SCHEDULE I.

## GAS BOULEVARD LAMPS.

North Division .....	7,126
South Division .....	12,466
West Division .....	18,254
	<hr/>
	37,846 @ \$25 00 each, \$ 946,150 00

## GASOLINE OIL LAMPS.

North Division .....	1,233
South Division .....	5,385
West Division .....	4,885
	<hr/>
	11,503 @ \$7 00 each, 80,521 00
	<hr/>
	\$1,026,671 00
	<hr/> <hr/>

## EXPENSE OF LIGHTING.

The following table shows the cost of lighting the City and maintaining lamps, during the year ending December 31, 1895, including the cost of extinguishing, under schedule adopted by the Council :

Total cost of lighting and maintaining gas lamps .....	\$ 707,034 33
For material for and lighting of oil lamps and .....	} 152,184 46
For gasoline used by the City for maintaining lamps ..	
For maintaining electric lamps—City plants .....	107,565 91
For lighting electric lamps by contract .....	53,260 99
For rental of real estate—Morrison tract .....	2,500 00
Total cost of lighting the City .....	\$1,022,545 69

## ELECTRIC LIGHTING.

The following table gives the annual extension of the system from 1887 to December 31, 1895, including the total cost of the same :

YEAR.	Number of Power Houses Erected.	Estimated Capacity of Power Houses in 2,000 Candle Power Lights.	Horse Power of Engines Installed.	Number of Arc Lights Placed in Operation as a result of Appropriation each Year.	Number of Arc Lights Displacing Gas Lights.	Number of Gas Lights Displaced.	Average Number of Gas Lights Displaced by each Electric Light.	Expended for Electric Light Construction and Maintenance.
1887.....	* 1	† 125	125	105	76	.....	.....	\$ 39,976 25
1888... ..	* 1	† 300	300	192	192	826	4 $\frac{3}{10}$	69,414 25
1889.....	† 3	3,000	1,500	372	372	1,452	3 $\frac{9}{10}$	307,856 62
1890.....	1	850	425	260	260	1,343	5 $\frac{1}{10}$	139,630 60
1891.....	.....	.....	.....	64	58	273	4 $\frac{7}{10}$	243,141 05
1892 .....	.....	.....	.....	109	88	341	3 $\frac{9}{10}$	139,893 16
1893.....	.....	.....	.....	10	10	40	4	133,168 21
1894.....	1	1,000	1,000	§ 4	.....	.....	.....	186,551 32
1895.....	.....	.....	.....	8	1	1	.....	177,411 33
Total....	4	3,850	2,300	1,116	1,057	4,276	.....	\$ 1,437,042 79

\* Abandoned. † Moved to Plant No. 1. § Decrease.

The Throop street plant, with capacity for 1,000 2,000-candle power arc lights and 625-horse power, with the real estate, was sold to the Metropolitan Elevated Railroad Company in 1893 for \$95,-000.00 and real estate upon which to erect a new plant.

The latter was erected at 299 to 301 South Halsted street, in 1894 and 1895, \$1,342,042.79 being the net amount expended altogether for electric light construction and maintenance. The City at present operates 1,116 2,000-candle power arc lamps from its power stations and rents 495 2,000-candle power arc lamps from private companies. All electric lights, whether operated from City power stations or from private plants, burn all night, from dusk to daylight, every night in the year.



## THE CITY ELECTRIC LIGHT SYSTEM COMPRISES—

Power stations .....	4
125-horse power high speed engines .....	9
300-horse power Corliss engines .....	1
500-horse power vertical compound condensing engines .....	2
100-horse power tubular boilers, heaters, pumps, etc .....	6
125-horse power tubular boilers, heaters, pumps, etc .....	8
500-horse power tubular boilers, heaters, pumps, etc .....	3
2,000-candle power double carbon and single carbon arc lamps .....	1,233
Incandescent arc lamps .....	6
Lamp posts .....	1,043
Lamp hoods .....	1,076
100-light high tension dynamos .....	8
60-light high tension dynamos .....	8
50-light high tension dynamos .....	8
35-light high tension dynamos .....	8
Miles of electric light cable .....	188
Number of feet underground conduit .....	12,580
Number of feet iron pipe laid underground .....	591,184
Number of manholes .....	363
Number of handholes .....	109

## SUMMARY OF ELECTRICAL INSPECTION.

## MOTORS INSPECTED.

YEAR.	NUMBER.	CAPACITY AND HORSE-POWER.
Previous to 1892 .....	668	2,004
1892 .....	504	1,492
1893 .....	601	1,881
1894 .....	568	1,128
1895 .....	558	1,319
Totals .....	2,899	7,824

Completed inspections of wiring only during 1895 .....	910
Certificates issued for wiring only during 1895 .....	284

Isolated plants reinspected during 1895, as follows :

ARC LAMPS.	INCANDESCENT.	MOTORS.		GENERATORS.	
		Number.	Horse Power.	Number.	Horse Power.
351	7,739	6	7½	45	1,309

Isolated plants in progress of reinspection :

Isolated plants previous to 1895.....	556
New installation, 1895 .....	55
Total .....	611

STATEMENT OF YEARLY INSPECTION OF ELECTRIC LIGHT LAMPS, FROM  
FEBRUARY 14, 1894, TO JANUARY 1, 1896.

YEAR.	NUMBER OF ARC LAMPS.	NUMBER OF INCANDESCENTS.
1884 .....	1,148	1,885
1885 .....	392	7,609
1886 .....	479	5,225
1887 .....	837	5,424
1888 .....	2,369	17,717
1889 .....	2,623	24,966
1890 .....	2,682	39,543
1891 .....	3,974	87,913
1892 .....	5,046	101,668
1893 .....	6,279	150,545
1894 .....	3,604	67,593
1895 .....	3,228	53,090
Totals.....	32,661	563,178

FINANCIAL.

Statement of the sum appropriated by the Common Council, together with various amounts from other sources, to be expended in public improvements under the supervision of the Department of Public Works during the year 1895 :

Balance January 1, 1895, to the credit of Water Fund, \$ 203,155 95

## RECEIPTS.

From appropriation for 1895.....	\$ 2,026,568 53
From rent of Rookery lot .....	35,000 04
From water revenue, including meter and private work and tapping permits .....	3,288,378 95
From advances to lay water mains.....	71,208 18
From hydrant wrenches.....	642 00
From sale of water certificates.....	699,185 00
From drain permits and drain licenses .....	36,923 75
From house-moving permits.....	2,636 00
From deposits for street permits (work done).....	72,997 70
From special assessment sewer inspection and work..	130,796 38
From deposits for sundry improvements, special assess- ments and other funds .....	407,506 49
From special assessment collections.....	3,044,871 29
Total.....	<u>\$10,019,870 26</u>

## EXPENDITURES.

For bridges and viaducts, street cleaning and removal of garbage, repairing improved and unimproved streets, public buildings and parks, Fullerton ave- nue and Canal pumping stations, improved street intersections, sewers, catch-basins, labor material and salaries .....	\$ 2,642,097 45
---	-----------------

## CONSTRUCTION.

For extension water pipe system.....	\$464,550 60
For water pipe and special castings.....	155,376 55
For Four-mile tunnel, Onderdonk judg- ments .....	111,617 83
For Lake View water tunnel.....	103,066 13
For Sixty-eighth street tunnel and crib..	84,223 74
For Northwest land tunnel.....	60,555 25
For Western avenue tunnel.....	27,379 23
For West pumping station .....	4,351 26
For Four-mile crib.....	4,264 54
For North Shore inlet extension.....	21,093 09
For Water Works shop.....	1,688 85
For Lake View pumping station.....	850 45
For Sixty-eighth street pumping station.	527 69
For Lake View crib.....	100 00
Total Construction.....	<u>1,039,645 21</u>



For maintenance of water system, operating pumping stations, cost of assessing and collecting water taxes, stock on hand, etc.....	\$ 1,435,515 98
For water certificates.....	1,168,185 00
For Hyde Park bonds.....	310,000 00
For Lake View bonds.....	69,000 00
For interest on bonds and certificates.....	74,256 93
For 7% water bonds.....	10,000 00
For advances for laying water pipe refunded.....	60,560 40
For street improvements, street openings, sidewalks, sewers, private drains, water service pipes and lamp posts.....	3,044,871 29
<b>Total .....</b>	<b>\$ 9,854,132 26</b>
Balance to credit Water Fund, January 1, 1896.....	133,299 83
Balance to credit Appropriation Fund, January 1, 1896.....	32,438 17
<b>Total .....</b>	<b>\$ 10,019,870 26</b>

## WATER WORKS RECEIPTS AND EXPENDITURES, 1895.

Credit balance January 1, 1895..... \$ 203,155 95

## RECEIPTS.

Water rate collections (including delinquents).....	3,076,077 57
Water service cocks (permits and plumbers' licenses, etc.) .....	76,679 15
Water meter labor, etc., for private parties .....	128,087 34
Rent for Rookery lot .....	35,000 04
Advance to lay water pipes.....	71,208 18
From sale of water certificates.....	699,185 00
Hydrant wrenches .....	642 00
Old material sold.....	1,997 75
W. A. Prendergast—his change account collection agency abandoned .....	100 00
King & Andrews, account forfeiture of contract.....	500 00
Interest on certificates sold.....	4,937 14
<b>Total .....</b>	<b>\$ 4,297,570 12</b>

## EXPENDITURES.

For water pipe extension .....	\$ 464,550 60
For water pipe and special castings .....	155,376 55
For Water Works repairs.....	396,379 63
For Four-mile tunnel—Onderdonk judgments.....	111,617 83
For Northwest land tunnel .....	60,555 25
For North shore inlet extension.....	21,093 09
For Western avenue tunnel.....	27,379 23
For Sixty-eighth street tunnel extension.....	84,223 74
For meter and private works.....	99,917 81
For water service cocks .....	54,366 93
For North pumping station.....	160,150 05
For West pumping station.....	113,946 53
For South pumping station.....	82,116 75
For Central pumping station.....	57,769 33
For Sixty-eighth street pumping station.....	87,900 23
For Lake View pumping station .....	63,856 25
For Washington Heights pumping station.....	5,393 08
For Norwood Park pumping station.....	2,261 66
For Two-mile crib .....	14,024 24
For Four-mile crib .....	13,434 77
For Lake View crib.....	3,907 15
For Lake View tunnel.....	103,066 13
For Water Office salary .....	221,351 38
For Water Office expense.....	14,954 33
For water proportional, office salary .....	32,810 02
For water proportional, office expense .....	13,716 16
For advance for laying water mains, refunded .....	60,560 40
For hydrant wrench deposits, refunded.....	442 00
For Water Works shops .....	1,688 85
For refund vouchers.....	4,018 39
For water certificates .....	1,168,185 00
For Hyde Park water loan bonds.....	320,000 00
For Lake View water loan bonds.....	69,000 00
For water loan interest .....	74,256 93
Total .....	\$ 3,164,270 29
Balance to credit of the Water Fund January 1, 1896..	133,299 83
Total .....	\$ 4,297,570 12

Total cost of Water Works of the City to December 31, 1895, is as follows :

Cost, up to May 1, 1861, when the works were transferred from the Board of Commissioners to Board of Public Works ..... \$ 1,020,160 21

## EXPENDITURES SINCE 1861.

Cost of water pipe, including labor.....	\$12,976,559	57
Cost of North pumping works.....	929,532	44
Cost of West pumping works.....	944,217	77
Cost of Sixty-eighth street pumping works.....	284,366	60
Cost of Central pumping works.....	372,227	77
Cost of Washington Heights pumping works.....	10,246	96
Cost of Lake View pumping works.....	145,243	82
Cost of South pumping works.....	569,272	84
Cost of new lake tunnel.....	1,104,744	12
Cost of Lake View tunnel.....	615,575	50
Cost of new lake shore inlet.....	132,345	34
Cost of new lake shore inlet extension.....	146,459	04
Cost of new lake shore inlet extension.....	21,093	09
Cost of North breakwater crib.....	41,780	11
Cost of Two-mile crib.....	102,744	41
Cost of Four-mile crib.....	467,927	83
Cost of Lake View crib.....	88,051	62
Cost of Sixty-eighth street tunnel extension.....	555,217	80
Cost of Ashland avenue tunnel.....	17,453	36
Cost of first lake tunnel.....	464,866	05
Cost of second lake tunnel.....	415,709	36
Cost of lake crib protection.....	149,431	63
Cost of land tunnel to West pumping works.....	542,912	63
Cost of new land tunnel.....	284,380	04
Cost of Water Works shops.....	27,240	58
Cost of Water Works stock.....	29,318	00
Cost of water reservoir fence.....	1,702	87
Cost of addition to stables.....	1,019	48
Cost of real estate for sites of pumping stations.....	206,972	35
Cost of works, annexed territory.....	1,160,164	24
Cost of Jefferson street tunnel.....	15,968	17
Cost of Northwest tunnel.....	61,575	25
Cost of Western avenue tunnel.....	27,379	23

Total cost of entire Works to December 31, 1895.. \$23,933 860 08



## Paid for as follows :

From general taxes .....	\$ 2,713,878 53
From City of Chicago Water Loan bonds, 6 per cent..	132,000 00
From City of Chicago Water Loan bonds, 4 per cent..	1,485,000 00
From City of Chicago Water Loan bonds, 4 per cent..	1,706,500 00
From City of Chicago Water Loan bonds, $3\frac{8}{10}\%$ per cent.	332,000 00
From City of Chicago Water Loan bonds, $3\frac{1}{2}\%$ per cent.	333,500 00
From bonds canceled .....	1,905,500 00
From Hyde Park Water Loan bonds, 5 per cent.....	50,000 00
From Hyde Park Water Loan bonds, 7 per cent.....	11,000 00
From Town of Lake Water Loan bonds, 5 per cent...	120,000 00
From Lake View Water Loan bonds, 4 per cent.....	50,000 00
From Lake View Water Loan bonds, 5 per cent.....	23,000 00
From Lake View Water Loan bonds, 7 per cent.....	6,000 00
From water certificates.....	198,000 00
From water earnings.....	14,867,481 55
Total.....	<u>\$23,933,860 08</u>

Total Water Works income to December 31, 1895.....	\$38,956,673 80
Total operating expenses and maintenance to December 31, 1895 (including \$8,058,642.64 interest on bonded debt and bonds and certificates canceled)..<	24,223,369 90
Difference between income and expenses .....	<u>\$14,733,311 90</u>

## Accounted for as follows :

Paid toward Water Works construction.	\$14,867,481 55
J. W. Lyons, cashier water office.....	2,000 00
Meter Department, stock on hand .....	8,113 50
Water Works shop, stock on hand .....	16,699 50
Tapping Department, stock on hand...	4,079 03
Water pipe, etc., stock on hand .....	136,538 00
Balance to credit of Water Fund, Jan. 1, 1896 .....	133,299 83
	<u>\$15,168,211 41</u>
Less amount due depositors for hydrant wrenches.....	\$ 2,171 82
Less amount advanced by private parties to lay water-pipe in non-paying districts .....	432,727 69
	<u>434,899 51</u>
	<u>\$14,733,311 90</u>

## BONDED DEBT OF WATER WORKS.

City of Chicago Water Loan bonds outstanding December 31, 1895, bearing 4 per cent. interest and maturing as follows :

July 1, 1908 .....	\$ 150,000 00	
July 1, 1910 .....	159,500 00	
July 1, 1912 .....	821,000 00	
July 1, 1914 .....	576,000 00	
July 1, 1915 .....	1,485,000 00	
		\$ 3,191,500 00

Bearing 3½ per cent. interest, maturing—

July 1, 1909 .....	\$ 225,000 00	
July 1, 1910 .....	108,500 00	
		333,500 00

Bearing 3⅞ per cent. interest, maturing—

July 1, 1902 .....	\$ 332,000 00	
		332,000 00

Bearing 6 per cent. interest, maturing—

July 1, 1897 .....	\$ 50,000 00	
July 2, 1898 .....	82,000 00	
		132,000 00

## ANNEXED DISTRICTS.

Town of Lake bonds :

5 per cent. bonds, due April 1, 1896....	\$ 15,000 00	
5 per cent. bonds, due April 1, 1897....	15,000 00	
5 per cent. bonds, due April 1, 1898....	15,000 00	
5 per cent. bonds, due April 1, 1899....	15,000 00	
5 per cent. bonds, due April 1, 1900....	15,000 00	
5 per cent. bonds, due April 1, 1901....	15,000 00	
5 per cent. bonds, due April 1, 1902....	15,000 00	
		105,000 00

Hyde Park bonds :

7 per cent. bonds, due January 1, 1896..	\$ 9,000 00	
5 per cent. bonds, due January 1, 1904..	50,000 00	
		59,000 00

Lake View Water bonds :

5 per cent. bonds, due July 1, 1904.....	\$ 23,000 00	
4 per cent. bonds, due July 1, 1907.....	50,000 00	
		73,000 00

Total bonded debt of Water Works..... \$ 4,226,000 00

Total interest paid on Water Loan to Jan. 1, 1896.... \$ 7,886,598 61

Floating indebtedness Water Loan certificates outstanding ..... \$ 200,500 00

In conclusion I wish to express my hearty appreciation of the courtesy which has characterized the intercourse between this Department and the City Council.

Respectfully,

W. D. KENT,

*Commissioner of Public Works.*





REPORT OF THE  
Bureau of Engineering

CITY OF CHICAGO.





# CITY ENGINEER'S REPORT.

HON. W. D. KENT,

*Commissioner of Public Works.*

DEAR SIR—I have the honor to submit herewith the annual report of the Bureau of Engineering for the year ending December 31, 1895.

The subject matter is treated under the following headings, viz:

1. Water Supply System and Auxiliary Stations.
2. Tunnel and Crib Construction.
3. Water Pipe Extension.
4. Bridge and Viaduct Construction.
5. Bridge and Viaduct Maintenance.
6. Harbor.
7. Architecture.

During the year, 91,921,532,749 gallons of potable water have been pumped into the City mains by all the pumping stations combined, or an average of 251,839,816 gallons per twenty-four hours.

Assuming the population to have increased 10 per cent since the last school census, making the population of the City 1,725,000, this consumption is at the rate of 146 gallons per capita per day.

The total pumpage for 1895 was 4,847,589,400 gallons in excess of 1894, and the expense of all the stations for the last year was \$30,130.22 less than the preceding year.

The pumping stations are in good repair, and with the exception of the Chicago avenue station and Lake View, where new engines are needed, the stations are fully equipped.

The City is drawing all its water from Lake Michigan through tunnels—the first one of which was commenced in 1864. The length of tunnels in use at the present date is:

8 feet diameter.....	9,715 feet.
7 feet diameter.....	38,469 feet.
6 feet diameter.....	39,026 feet.
5 feet diameter.....	18,590 feet.

Total.....105,800 lineal feet,

or a little over twenty miles, and yet with this great system, the demand for additional supply, owing to the rapid growth of the City, is steadily increasing, especially in the extreme west and northwest

sections of the City and districts that have been made part of the City by annexation. Steps have been taken to relieve these sections by the building of some eight miles of land tunnel, which is noted in detail under the head of Tunnel Construction.

I would respectfully recommend that during the coming year the 7-foot tunnel between the Sixty-eighth street Two-mile crib and the submerged intake be extended westward to the Yates avenue shaft, at the Sixty-eighth street Pumping Station, a distance of about 6,000 feet, the extension to be seven feet internal diameter. I consider this necessary to supply the southern and southeastern portions of the City.

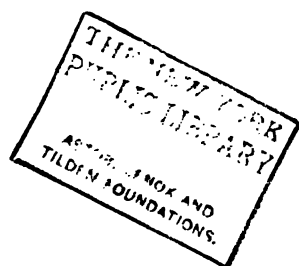
We have laid during the year 350,405 lineal feet of water mains, which is 29,567 feet less than was laid in 1894. In this connection, it may be stated that during 1895 we laid 2,687 feet of 36-inch pipe, while in 1894 there was no pipe of that size laid; also in 1895, there were 24,174 feet more 24-inch pipe laid than during the preceding year. The City employes lay all mains above twelve inches in size, so that in reality there was more work done in 1895 than in 1894.

I beg to call your attention to the particular necessity of placing additional valves in the district bounded on the north and west by the Chicago river, on the east by Michigan avenue and on the south by Harrison street.

I respectfully recommend that a sufficient number of valves be placed in this district so that when it is necessary to shut off a main only one side of a block need be affected. With the present limited number of valves there are a great many points that, when it is necessary to shut off a main, from one to four blocks are affected. I also recommend that all small mains that are inadequate to supply the district in which they are laid be taken up and replaced with larger ones as speedily as possible.

I desire, also, to call your attention to the necessity of renewing a number of bridges which are noted under the head of Bridge and Viaduct Construction. These bridges were built from eighteen to twenty-seven years ago, and for light traffic. They are to-day inadequate and really dangerous, and are called upon to sustain a much heavier load, owing to the increase in traffic, than they were originally designed for.

I respectfully recommend that these bridges be renewed during the ensuing year.







## WATER SUPPLY SYSTEM.

## OPERATION.

## TUNNELS, CRIBS AND INTAKES.

The water tunnels supplying the various pumping stations are in good condition.

The length and internal diameters of the tunnels in use during the year are as follows :

## LAKE VIEW TUNNEL.

6 ft. diameter, length 6,000 feet, supplying Lake View Pumping Station.

## CHICAGO AVENUE LAKE TUNNELS.

5 ft. diameter, length 10,560 feet. }  
7 ft. diameter, length 10,560 feet. } Supplying North Pumping Station.

## CHICAGO AVENUE LAND TUNNEL.

7 ft. diameter, length 20,856 feet, being an extension of 7-ft. lake tunnel from Chicago avenue Pumping Station to West Pumping Station.

## FOUR-MILE LAKE TUNNEL.

8 ft. diameter, length 9,139 feet. }  
6 ft. diameter, length 25,200 feet. } From Four-mile crib to Park Row shaft.

## FOUR-MILE LAND TUNNEL.

8 ft. diameter, length 516 feet. }  
6 ft. diameter, length 2,320 feet. } From Park Row shaft, supplying Fourteenth street Pumping Station.

The specifications provided for an 8-foot tunnel from the Four-mile crib to Park Row shaft and thence to the Fourteenth street Pumping Station, but owing to the character of the soil it was found necessary to split the 8-foot tunnel into two 6-foot tunnels, as shown on the diagram.

7 ft. diameter, length 7,053 feet. }  
6 ft. diameter, length 480 feet. } From Park Row shaft, supplying Central Pumping Station.

## JEFFERSON STREET CONNECTION.

6 ft. diameter, length 625 feet, between Chicago avenue land tunnel and Four-mile land tunnel.

## SIXTY-EIGHTH STREET TUNNELS.

7 ft. diameter, length 5,037 feet. }  
5 ft. diameter, length 8,030 feet. } From Two-mile crib, supplying Sixty-eighth street Pumping Station.  
6 ft. diameter, length 5,026 feet, from submerged crib, supplying Sixty-eighth street Pumping Station.

(See diagram attached.)

## LAKE VIEW CRIB.

The Lake View tunnel being nearly finished, it will be necessary to construct the superstructure on the outer crib during the coming summer. The temporary intake at the inner crib has been in good condition during the year.

Mr. Edward Slattery looks after the intake.

## TWO-MILE CRIB.

The usual repairs and cleaning have been done at this crib during the summer. There has been no interruption to the flow of water at the intake during the year.

Captain William Dall is crib-keeper.

## FOUR-MILE CRIB.

This structure is in good condition, with the exception of the interior of the dwelling, which needs painting. The rip-rap in the landing fell out between the piles on the east side during the year. This work has been repaired by placing large stones nearest the piles and then by filling with rip-rap. The ice has in no way interfered with ports or intakes of this crib.

Captain C. N. Frennesen is in charge of the crib.

## SIXTY-EIGHTH STREET CRIB.

This crib has been protected by the construction of a breakwater of which mention is made under new construction. Plans have been drawn for a new permanent superstructure, and this should be built during the coming summer. There has been no interference by the ice to the flow of water at this intake.

Captain C. E. Cherry is the keeper.

## PUMPING STATIONS.

## NORTH PUMPING STATION.

MR. THOMAS FERRIS is the Engineer in charge at this station.

The condition of the engines and boilers at this station is about the same as for some years past. The 1872 Cregier engine has been running continuously for the year.

The 1867 Quintard engine was shut down eleven days in April for overhauling and is now in fair condition. The two Gaskill engines were thoroughly overhauled in October and are in good condition for continued service.



The 1853 and 1857 Morgan engines have been out of service a great deal, the former having been in service only 61 days during the year. These engines should be replaced by new ones without delay.

The brickwork on the Murphy boilers and on two of the Holly boilers has been repaired during the year, otherwise the condition of the boiler plant is the same as during the preceding year.

The Holly room needs repainting and the roof should be repaired at an early date.

#### WEST PUMPING STATION.

MR. JOHN SANBORN is the Engineer in charge at this station.

This station is equipped with four Quintard engines, and, with the exception of engine No. 50, have been pumping continuously during the year. The large main crank shaft of engine No. 50 broke at 7:20 a. m. on the twelfth of November, in a similar manner that the main shaft of engine No. 51 broke in 1894. A new steel shaft was immediately ordered and this engine will be ready for service in a few days. During the time the engine has been out of service, other necessary repairs have been made.

Engine No. 51 is in fair condition, but engines No. 25 and No. 26 need overhauling. The boiler plant is in good condition, with the exception of boilers No. 1 and No. 2, on the south end, which need some slight flue repairs. The roofs of the engine and boiler rooms and of the coal shed need repairing and the building both inside and outside should be repainted.

#### FOURTEENTH STREET PUMPING STATION.

MR. GEORGE W. MATTHEWS is the Engineer in charge at this station.

The engines at this station have been running continually during the year, and are in good condition.

The bottom sheet of boiler No. 1 has been repaired, and four new flues placed in it. All small valves have been renewed, and all boilers equipped with "Reliance" water columns.

The steam-pipe system is in bad condition and should be overhauled and repaired at the earliest possible date.

Each engine should also be piped separately from the header, to prevent the necessity of shutting down more than one engine at a time in case of a break in the steam pipe.

## CENTRAL PUMPING STATION.

MR. PHILIP PETRIE is the Engineer in charge at this station.

During the last year no extensive repairs were made on the engines at this station, and they are, though running continuously during the year, in good condition.

New bottom sheets were placed in boilers 4, 5 and 6, at an expenditure of \$798.00—the sheets running the whole length of the boilers. This leaves the boiler plant at this station in good condition.

## SIXTY-EIGHTH STREET PUMPING STATION.

MR. GRANVILLE KIMBALL is the Engineer in charge at this station.

The engines at this station, or so many of them as were necessary to maintain an average pressure of about fifty-four pounds to the square inch on the mains at the station, have been running continuously.

The four Gaskill and the Worthington engines, which are our main reliance at this station, are in good condition, with the exception of an air pump cylinder of the Worthington engine, which, on December 8th, cracked open. This has been temporarily repaired. There has been no other break-down during the year.

The old Cope Maxwell engines were thoroughly overhauled in the beginning of the year, at an expense of \$4,600.

The boiler plant is in fair condition, with the exception of two boilers, which have been condemned and are out of service. These boilers should be removed and new ones substituted at an early date.

The electric light plant has been thoroughly overhauled, and is rendering better service at a greatly reduced cost. This station has been thoroughly cleaned and painted during the year.

## LAKE VIEW PUMPING STATION.

MR. F. D. PARKER is the Engineer in charge at this station.

All the engines at this station, with the exception of the small Flanders engine, have been running continuously during the year, and, with the exception of the Worthington, are in good condition. The Worthington engine should be provided with a new condenser and air pumps.

This station is taxed to its utmost capacity, and an additional pump should be added at the earliest possible date.



## WASHINGTON HEIGHTS PUMPING STATION.

MR. SIDNEY CURNICK is the Engineer in charge at this station.

Less water has been pumped this year at this station than during 1894, owing to the fact that Fernwood, which formerly was supplied from this station, has been connected with the main running from the Sixty-eighth street Pumping Station to West Pullman. An 8-inch pipe has also been laid and connected with the cistern at the Washington Heights Station, which feeds this station whenever the well pump is out of order.

## NORWOOD PARK PUMPING STATION.

MR. FRANK NORTON is the Engineer in charge at this station.

The small pump at this station was thoroughly overhauled during the year. The boiler was reset and put in good condition. During the year 18,639,800 gallons of water were pumped.

## AUXILIARY PUMPING STATIONS.

## CANAL PUMPING STATION.

MR. FRANK M. NYE is the Engineer in charge at this station.

Extensive repairs were made at this station during the year. New brasses were put in all crossheads of the engines, keys and other minor parts were renewed, all receivers have been repaired and the engines repainted; the arches of the south battery of boilers were repaired and the boilers furnished with the Hawley down-draft furnaces; the north battery was equipped with the McMillan furnaces. New blow-off valves and water columns were placed on all the boilers. A new twelve-inch header was put in during the year, and the whole plant thoroughly renovated.

The pumps are in good condition and the inside of the station presents a neat and clean appearance.

The pumps had to be shut down for a short time on various occasions during the year for the purpose of repairing and to allow vessels, that had been drawn in towards the screens by the current, to get away.

At times vessels have been stuck in the draw at the Fuller Street bridge when it has been necessary to stop the engines long enough to allow the river to rise sufficiently to float the vessels. The extraordinary rainfall in the latter part of December flooded the Illinois and Michigan Canal and enforced the stoppage of the pumps for two days.

The amount of water pumped from the Chicago River into the Illinois and Michigan Canal at this station during the year was 25,959,190,008 cubic feet, or an average of 49,390 cubic feet per minute for the whole year. The average head pumped against was 5.7 feet.

#### FULLERTON AVENUE PUMPING WORKS.

MR. FRED. GIELOW is the Engineer in charge at this station.

Thorough repairs to the engines were made during the year. New piston rods and new valve seats were put in. New bottom sheets running the whole length of the boilers were placed. Two of the boilers were equipped with Orvis retort down-draft furnaces and the bridge walls renewed. This leaves this plant in good shape.

The total amount of lake water pumped into the North Branch of the Chicago River at this station during the year was 3,300,519,200 cubic feet.

The accompanying tables give information in detail regarding pumpage, expenditure, etc.

The appended diagram shows the daily pumpage of each station separately and combined, with the quantities, heads and temperatures of the air and water.

Table "A" gives the monthly and annual pumpages, and table "B" gives the most important figures relating to quantities and expenses. Table "C" gives a comparative statement of pumpage and expenses, etc., for the years 1894 and 1895.



THE NEW YORK  
PUBLIC LIBRARY

ASTOR, LENOX AND  
TILDEN FOUNDATIONS.



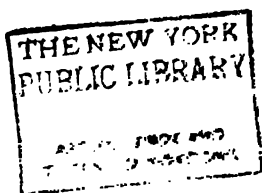




TABLE "B." OPERATIONS OF PUMPING STATIONS, CHICAGO, DURING 1895.

	North Side.	West Side.	Fourteenth Street.	Central.
Anthracite Coal, tons.....	14,368.838			
Bituminous Coal, tons.....	9,430.838	16,797.538	9,463.838	7,299.838
Fuel Oil, gallons.....				
Average price of Anthracite Coal, per ton.....	\$4.94			
Average price of Bituminous Coal, per ton.....	2.70	\$2.50	\$2.73	\$2.69
Price of Fuel Oil, per 100 gallons.....				
Cost of Anthracite Coal.....	70,993.83			
Cost of Bituminous Coal.....	25,495.54	42,026.76	25,860.92	19,686.62
Cost of Fuel Oil.....				
Total Cost of Fuel.....	96,488.87	42,026.76	25,860.92	19,686.62
Salaries.....	52,826.85	41,734.15	46,624.64	31,333.97
Cost of Oil, Stores and Lighting.....	3,148.43	4,247.39	2,577.12	3,179.91
Repairs to Buildings, Pumps, Engines and Boilers.....	3,069.66	4,353.12	4,340.49	4,380.81
Total Expense of Operation and Maintenance.....	155,533.31	92,351.42	79,408.17	58,571.31
All other Expenses combined.....	1,208.96	19,944.96		
Grand Total of Expenses.....	156,742.27	112,296.38		
Total Gallons Pumped during the year.....	24,083,441.965	19,586,984.260	15,355,551.760	10,847,506.943
*Per Cent of Pumpage of City as a whole.....	26.3	21.3	16.6	11.8
Greatest Amount Pumped in one day, gallons.....	85,647,795 Feb. 7	65,744,600 Feb. 17	50,588,748 Feb. 13	32,741,888 Mar. 27
Least Amount Pumped in one day, gallons.....	50,296,810 Nov. 9	39,789,180 Nov. 24	30,413,023 Dec. 29	15,970,212 Feb. 19
Average Pumped per day, gallons.....	65,982,033	53,662,971	41,796,402	29,719,197
Average Head against Pumps, in feet.....	111	101.8	112.1	101.2
Cost of Fuel Pumping 1,000,000 gallons, one foot high.....	3.00c.	2.00c.	1.75c.	1.75c.
Total Cost of Pumping 1,000,000 gallons, one foot high.....	5.00c.	4.00c.	4.00c.	5.00c.

\*Norwood Park Station not included.



TABLE "B." OPERATIONS OF PUMPING STATIONS, CHICAGO, DURING 1895—CONTINUED.

	Sixty-eighth Street.	Lake View.	Washington Hts.	The City as a whole.
Anthracite Coal, tons	.....	.....	.....	14,368 <sup>1</sup> / <sub>888</sub>
Bituminous Coal, tons	.....	.....	.....	53,461 <sup>4</sup> / <sub>888</sub>
Fuel Oil, gallons	.....	9,366 <sup>7</sup> / <sub>655</sub>	.....	2,160,816
Average price of Anthracite Coal, per ton	.....	.....	.....	\$4.94
Average price of Bituminous Coal, per ton	.....	.....	.....	2.64
Price of Fuel Oil, per 100 gallons	.....	\$2.67	.....	1.49
Cost of Anthracite Coal	.....	.....	.....	70,993.33
Cost of Bituminous Coal	.....	24,995.95	.....	141,408.26
Cost of Fuel Oil	.....	.....	.....	32,155.10
Total Cost of Fuel	.....	24,995.95	.....	244,556.69
Salaries	.....	25,948.56	.....	241,043.89
Cost of Oil, Stores and Lighting	.....	1,972.18	.....	20,456.73
Repairs to Buildings, Pumps, Engines and Boilers	.....	8,219.71	.....	29,578.32
Total Expense of Operation and Maintenance	.....	61,131.40	.....	535,630.63
All other Expenses combined	.....	.....	.....	21,770.19
Grand Total of Expenses	.....	61,131.40	.....	557,400.82
Total Gallons Pumped during the year	18,998,566,131	8,045,238,360	85,467,530	91,931,532,749
*Per Cent of Pumpage of City as a whole	.....	8.7	.....	100
Greatest Amount Pumped in one day, gallons	46,632,942 Aug. 9	26,490,380 Aug. 22	330,200	291,323,581 Feb. 9
Least Amount Pumped in one day, gallons	31,532,992 Sept. 1	16,516,608 March 30	212,760	217,707,258 Mar. 9
Average Pumped per day, gallons	38,352,236	22,041,751	234,158	251,839,816
Average Head against Pumps, in feet	128	110.5	104.7	109.9
Cost of Fuel Pumping 1,000,000 gallons, one foot high	1 <sup>38</sup> / <sub>c.</sub>	2 <sup>65</sup> / <sub>c.</sub>	20 <sup>75</sup> / <sub>c.</sub>	2 <sup>65</sup> / <sub>c.</sub>
Total Cost of Pumping 1,000,000 gallons, one foot high	4 <sup>18</sup> / <sub>c.</sub>	6 <sup>37</sup> / <sub>c.</sub>	57 <sup>45</sup> / <sub>c.</sub>	5 <sup>30</sup> / <sub>c.</sub>

\*Norwood Park Station not included.

TABLE "C." COMPARATIVE STATEMENT OF OPERATIONS OF PUMPING STATIONS, 1894 AND 1895.

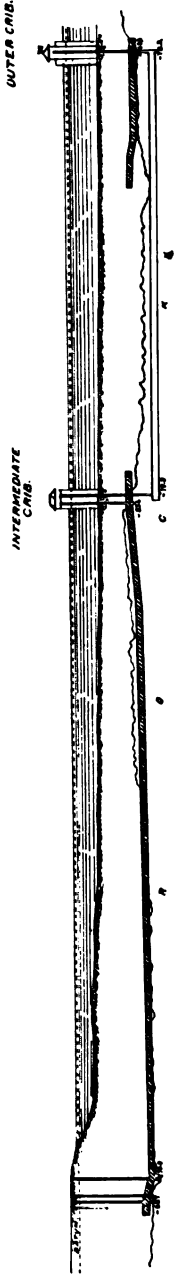
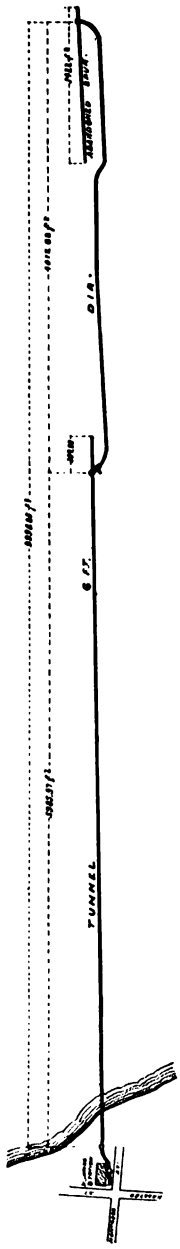
	North Side.	West Side.	Fourteenth Street.	Central.	Sixty-eighth Street.	Lake View.	Washington Heights.	*The City as a whole.
Total Pumpage, 1895...	24,083,441,965	19,586,984,260	15,255,686,760	10,847,506,943	13,998,566,131	8,045,239,360	85,467,530,91	902,892,949
Total Pumpage, 1894...	21,699,012,770	19,276,164,380	16,082,784,584	10,257,974,975	12,788,587,308	6,853,272,432	132,470,900	87,060,267,349
Increase, 1895.....	2,384,429,195	310,819,880	.....	589,531,968	1,209,978,823	1,191,966,928	.....	4,812,625,600
Decrease, 1895.....	.....	.....	797,097,824	.....	.....	.....	47,003,370	.....
Total Expense of Operation and Maintenance, 1894.....	\$ 157,416.24	\$ 105,865.63	\$ 97,284.97	\$ 63,263.86	\$ 76,246.02	\$ 59,063.05	\$ 6,621.08	\$ 565,760.85
Total Expense of Operation and Maintenance, 1895.....	155,533.31	92,351.42	79,403.17	58,571.31	88,498.39	61,131.40	5,141.63	535,630.63
Decrease in Cost, 1895..	1,882.93	13,514.21	17,881.80	4,692.55	.....	.....	1,479.45	30,130.22
Increase in Cost, 1895..	.....	.....	.....	.....	7,252.37	2,068.35	.....	.....
Total Cost of Pumping 1 Mill. 6a. 1 ft. high, 1894...	6.23c.	5.23c.	5.23c.	5.23c.	4.67c.	7.63c.	44.63c.	5.85c.
Total Cost of Pumping 1 Mill. 6a. 1 ft. high, 1895...	5.03c.	4.63c.	4.63c.	5.23c.	4.63c.	6.17c.	57.13c.	5.33c.
Decrease in Cost, 1895..	1.20c.	6.00c.	1.00c.	1.00c.	1.00c.	1.00c.	.....	1.00c.
Increase in Cost, 1895..	.....	.....	.....	.....	.....	.....	12.23c.	.....

\*Norwood Park Station not included.





# ALIGNMENT & PROFILE -GOLF- 6 FT TUNNEL EXTENSION LAKE VIEW



## TUNNEL AND CRIB CONSTRUCTION.

MR. JOHN ERICSON, Assistant City Engineer, is in charge of this branch of the Bureau work.

## LAKE VIEW TUNNEL.

This tunnel being practically completed, a short history of its construction follows:

Owing to the inadequate supply and the unsatisfactory quality of the water furnished by the short intake pipes, the authorities of the former City of Lake View decided to construct this tunnel.

The first contract, awarded by the old City of Lake View to Messrs. Shailer & Schniglau, contractors, is dated May 24, 1889, and calls for 5,000 lineal feet of brick tunnel of 6 feet inside diameter, shore shaft, lake shaft, lake crib, light house and electric lights, for a bulk sum of \$159,650.00.

For an extension beyond 5,000 feet, limited to 500 feet, a price of \$16.85 per lineal foot was to be paid.

For a difference in depth either way of 80 feet below datum, \$49.75 per lineal foot for the shore shaft is to be added or subtracted from this bulk sum.

For a difference either way from a depth of 79 feet below datum, \$144.00 per lineal foot for the lake shaft is to be added or subtracted from bulk sum.

The second contract, dated September 23, 1890, calls for an extension of the 5,500 feet provided for in the first contract, of 4,500 feet in length and 6 feet inside diameter. In consideration of the longer haul, taking material in and bringing excavated material out of the tunnel, the larger plant necessary for ventilation, etc., a price of \$18.50 per lineal foot shall be paid for the 4,500 lineal feet of tunnel, arranged on the following basis:

First .....	500 feet, \$16.85 per lineal foot.			
Second .....	500 "	17.03	"	"
Third .....	500 "	17.31	"	"
Fourth .....	500 "	17.69	"	"
Fifth .....	500 "	18.17	"	"
Sixth .....	500 "	18.75	"	"
Seventh .....	500 "	19.43	"	"
Eighth .....	500 "	20.21	"	"
Ninth .....	500 "	21.09	"	"

For the necessary additional height of the crib on account of the extension of the tunnel, the contract calls for an extra sum of \$11,116.00.

The tunnel construction commenced with a shaft on shore, from which the tunnel was driven eastward under the Lake. Some six thousand three hundred (6,300) feet of tunnel was thus built before any work was done from the Two-mile crib, which meanwhile had been built and placed. Owing to the slow progress made on the tunnel, the poor quality of the water pumped through the old intake pipes and the trouble from ice in the winter time, it was decided to place a temporary crib over the tunnel about six thousand (6,000) feet from shore; sink an intake shaft with gates; put a bulkhead in the east drift close to the shaft, and then build the remainder of the tunnel from the outer crib.

This temporary crib was finished and the shaft connected with the tunnel April 2, and water was let in April 6, 1892. The Lake View Pumping Works have since been pumping water supplied through this intake.

The plans and specifications specify that "the bottom of the inside surface of the west end of the tunnel shall not be less than eighty (80) feet below City datum, and have a gradual inclination upward of one foot per mile to the eastern terminus."

This grade, however, was changed to seventy (70) feet below datum before work was commenced. The heading running eastward from shore had to be driven almost constantly through more or less rock, making progress very slow and the cost great.

In the early part of October, 1891, the face of the tunnel then being about four thousand nine hundred and twenty (4,920) feet from shore, the contractors were ordered by the City Engineer to change the grade so as to rise out of the rock.

The change was made, and the last one thousand (1,000) feet of the shore heading was built to an inclined grade upward until an elevation of fifty-seven (57) feet below datum was reached at the end of the shore heading six thousand three hundred (6,300) feet east from the shore shaft.

Tunneling from the outer crib commenced in November, 1892. The grade as established by the engineer at this point is 63.5 feet below datum, or 6.5 feet lower than the east end of the shore heading. The work proceeded through good soil at a slightly inclined grade upward until a distance of one thousand two hundred and sixty (1,260) feet west from the crib was reached, when the water began to come in through a sand and gravel pocket in the roof of the drift in such quantities as to flood the pumps and fill the whole tunnel and shaft with water up to lake level. This occurred February 15, 1893. Attempts were made to pump the water out, but proved unsuccessful.



It was then decided to resort to compressed air for the purpose of driving the water out of the tunnel, and in a letter of March 7, 1893, the City Engineer instructed the contractors to proceed with the installation of the same.

By means of the compressed air plant, after a lot of clay had been dumped over the break, water was forced out of the shaft through a pipe reaching up through the air lock. When the water in the shaft had been lowered so as to create a head of about thirty feet, the air pressure was reduced. It was then found that the leak was very small, since the water remained at nearly the same level. A few more scow loads of clay were dumped, however, which almost stopped the leak.

According to the diver's report on his first examination of the bottom of the lake, the hole was supposed to be quite small. It was, therefore, considered safer to pump the water out of the tunnel than to force it by air pressure, since it was feared that when the compressed air reached the face it would find its way out and open up the hole. The air lock was, therefore, taken out and the pump placed in the shaft. All went well until the water in the shaft had been pumped out, so as to reach the eye of the tunnel, which was at eleven o'clock a. m., June 22, 1893, or four hours after the commencing of pumping, when in an instant the water began to rise and filled the shaft in a few minutes.

On the 23d a diver was engaged to examine the ground at the location of the leak, and he reported that there was a large opening in the lake bottom, about eight feet in diameter.

After the failure to stop the leak at the end of the west drift, from the outer crib, it was decided to build a temporary pile crib adjacent to the inner Lake View Crib, sink a shaft and commence to build a tunnel at a lower level, so as to be entirely in rock, out toward the outer crib. This work was commenced early in August, 1893.

After the completion of the crib, the sinking of the shaft progressed more or less satisfactorily until the required depth was reached.

Tunneling eastward commenced in February, 1894, and has since progressed without interruption.

It was first intended to connect this tunnel with the west end of that part built from the outer crib, but it was finally considered entirely too risky, and the present construction was carried on with a view of connecting with the shaft at the outer crib.

At the expiration of the second contract, there remained about 2,000 feet of tunnel to be built. By agreement between the contractors and the City, the contractors were to receive \$20.00 per lineal foot for the said remaining part of the tunnel.

At the beginning of the year 1895, 2,205 lineal feet of tunnel from the center of the shaft at the intermediate crib had been constructed, and 1,959.8 lineal feet of tunnel have been constructed during the year. The abandoned spur running west from the outer crib has been bulkheaded off by placing alternate piles of bags of cement and sand, a distance of fourteen feet. The water was then pumped out of the shaft and a brick bulkhead 4.5 feet thick built nearest the shaft. The shaft was then sunk to the level of the new tunnel and connection between the tunnel and the shaft made December 27th. The connection at the inner crib, the removal of a bulkhead, some brick work and the cleaning out of the tunnel remains to be done after the first of January, 1896. This tunnel will not add to the present supply, but will greatly improve the quality of the water for that section of the City.

Mr. R. B. Wilcox, Assistant Engineer, is in local charge of this construction.

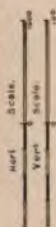
#### NORTH SHORE INLET EXTENSION.

The seven-foot shore tunnel, which in 1891 was extended to the northwest end of the United States exterior breakwater, has, since its completion, been practically useless, owing to the proximity of the intake to the shore. The two old tunnels terminating at the two-mile crib have in late years been taxed to their utmost capacity, and, in order to utilize the shore tunnel and relieve the old ones, it was decided to extend the former to the two-mile crib. A contract for this work was entered into on August 22 with Ross & Ross, of this City.

In order to use this shore tunnel as an emergency intake, during the construction of the extension, the specifications provide for the sinking of a new working shaft on the south-west side of the breakwater crib. This provision, however, was changed, in that permission was granted the contractors to use the outer shaft in the breakwater crib for a working shaft, and for this purpose to isolate the shore tunnel by closing the intake ports in the inner shaft and by placing a wooden plug over the west eye of the tunnel in the shaft at the Chicago Avenue pumping station, the contractor binding himself to have these shafts opened up for use at the request of the City.



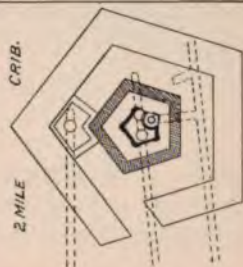
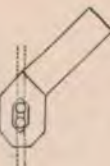
# ALIGNMENT & PROFILE 7 FT TUNNEL EXTENSION



PROFILE OF NORTH 7 FT TUNNEL.



BREAKWATER CRIB.







Owing to the insufficient port area and the small size of the well at the two-mile crib, it was decided to sink a new intake shaft between the crib proper and its protection breakwater and to protect the same with a pile crib filled with rip rap.

#### BREAKWATER CRIB.

The contractors commenced operations on September 9. After considerable delay on account of improper machinery, etc., the shaft was finally pumped dry and the eye of the new tunnel was turned on October 21.

The work from this shaft has since then progressed without any serious interruption, only delayed a few days by fire damp and storms. The progress by months has been as follows:

October—6 working days,	122 lineal feet; daily average,	19.3 feet.
November—26       “       636       “       “       “		24.5   “
December—23       “       586       “       “       “		25.48   “

Making a total of 1,344 lineal feet of tunnel built during the year.

Blasting with dynamite in moderate charges of from five to ten pounds has been permitted whenever the ground was of such a nature to allow it with advantage. The character of the ground has been mostly blue clay with strata of loam and pockets of dry gravel. The soil, being stratified, frequently needs timber support to hold it up until the brick work is placed. In many cases for the same reason timbers and boards had to be left permanently in the tunnel and bricked in.

The excavated material is by permission dumped on the south-east side of the crib, under the condition that it will be removed by dredging whenever deemed necessary.

#### TWO-MILE CRIB.

Work on the new crib house was commenced September 11, 1895, by the driving of piles for the protection of the intake shaft. Work on the house proper was commenced on October 14, and was practically finished by the end of that month. The cast-iron sections have been placed on the crib. The length of the cast-iron shaft thus provided will allow of sinking the shaft to about twenty-three feet below the bottom of the lake, at which depth it is estimated that the soil will be hard enough to allow brick underpinning, and the balance of the shaft thus built to the required depth.

The bottom of the lake where the shaft will be sunk has been cleared of the stone and rubbish alluded to in the specifications. All of this work had to be done by divers.

Mr. C. T. Anderson is engineer in local charge of this work, and Mr. Paul G. Brown is his assistant.

### NEW LAND TUNNELS.

For some years past the remote west and northwest sections of the City have been suffering more or less on account of an insufficient water supply, although the City has been continually adding to its water supply plant. Since 1887 over twelve miles of tunnels, varying in size from five feet to eight feet inside diameter, have been constructed. Two new pumping stations, with a combined capacity of about 90,000,000 gallons per day, have been erected, and the old stations greatly extended and new machinery added. Preparations have also been made on a grand scale to relieve the above mentioned districts. It has been decided to construct two additional pumping stations—one in the vicinity of Humboldt Park and another near Jackson boulevard, west of Rockwell street—each with a capacity of 60,000,000 gallons per twenty-four hours. To feed these stations with water, it is necessary to construct a new lake tunnel with attending land ramifications, since the existing tunnels cannot supply the additional amount of water or any part thereof to the proposed stations. Contracts for the construction of these land tunnels have been let during the year, and the work of construction commenced.

#### SECTION ONE.

Section one comprises that part of the proposed tunnel between a point near Green Bay Park and a point near the intersection of North Green street and Grand avenue on the West Side.

This tunnel is to be about 6,650 feet long and to have an inside diameter of 10 feet. The contract for the construction of the same was awarded September 30, 1895, to the FitzSimons & Connell Company, of this City.

An engineering party was immediately organized and surveys commenced on September 4th. This work comprised a skeleton survey between the termini of the section, the location of all buildings and streets on the line of the tunnel and the running of levels to establish the necessary bench marks in the vicinity of the proposed shafts. A complete circuit was established and the latitude and





NEW YORK

NEW YORK



NEW LAND TUNNEL—SECTION 2.

CARROLL AVENUE SHAFT.

DRIFT NO. 1.

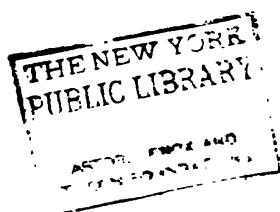


NEW LAND TUNNEL—SECTION 3.

KEITH STREET SHAFT.

DRIFT NO. 2.





departure of each point was found with reference to an established base line. The notes have all been reduced and platted on a scale of 100 feet to the inch.

Mr. John H. Spengler is in local charge of this section, and Mr. Edwin Woods is his assistant.

#### SECTION TWO.

This section comprises an extension of section one in a south-westerly direction to the proposed pumping station west of Rockwell street. The inside diameter of this tunnel is eight feet. The contract for the construction of this part was awarded September 30, 1895, to Mr. Joseph J. Duffy, of this City. The engineering party of this section was organized simultaneously with the one of section one, and the surveys were commenced immediately after the letting of the contract. This work is of the same character as that for section one.

The actual work of construction commenced November 23d, when the contractor began the sinking of a ten-foot shaft on Carroll avenue, between Ann and Elizabeth streets, at a point previously located on the line of the proposed tunnel. The shaft was finished to the required depth in about twelve days; the eyes were turned and tunneling commenced. To the end of the year, 232 lineal feet of tunnel were constructed. The soil has thus far been a hard, blue clay, with occasional nests of large boulders, some of which require blasting in order to be removed.

Mr. F. G. Ewald is in local charge of section two, and Mr. N. A. Sager is sub-assistant.

#### SECTION THREE.

Section three is a branch tunnel of eight feet inside diameter extending from the junction of sections one and two in a north-westerly direction to a proposed pumping station in the vicinity of Humboldt Park.

The field work for this section was commenced on September 5th. Thirteen and one-third miles of overground survey lines have been run and checked, embracing a strip of territory about three blocks in width and extending from Green street and Grand avenue on the southeast to Lawndale avenue and Humboldt avenue on the northwest.

Within this area have been located and platted forty-five blocks of buildings, which is about one-half the work of this character to be done. Levels have been run and bench marks established along this line.

Locations for shafts have been made on Keith street north of Huron street, and on Potomac avenue just west of Leavitt street. The contractors, Messrs. Weir, McKechney & Co., to whom was awarded the contract for this section, on October 19, 1895, have commenced the work of construction. One shaft has been sunk in Keith street to a depth of sixty-five feet, and in Potomac avenue to a depth of fifty-two feet below street grade. At these respective depths rock was encountered in both shafts. After striking rock the work was temporarily suspended by the contractors in order to provide the necessary equipment.

The contractors, at this writing, have resumed work, with an apparent intention of pushing it to the best of their ability.

This section is placed in local charge of Mr. E. W. Jackson, Assistant Engineer, with Mr. Eugen La Mana as sub-assistant.

#### LAKE TUNNEL.

Plans and specifications for this part of the work are being prepared. Borings in the lake bottom 500 feet on either side of the proposed tunnel were made during the summer, and a profile showing the stratification of the soil has been prepared.

This work, as a whole, is expected to be finished in about two years.

#### NORTH WESTERN AVENUE WATER PIPE TUNNEL.

This tunnel, through which the new Western avenue 24-inch water main is to be laid, was constructed during the year. The tunnel, which is 404 feet long, between centres of shafts, is constructed through solid limestone, and is of sufficient size to accommodate at least two 24-inch pipes. The tunnel is not lined with brick. In sinking the shafts, one on either side of the river, it was found that the stratum of sand overlying the rock contained water under pressure in such quantities that it was necessary to adopt the pneumatic process of construction, greatly retarding the progress and increasing the cost.

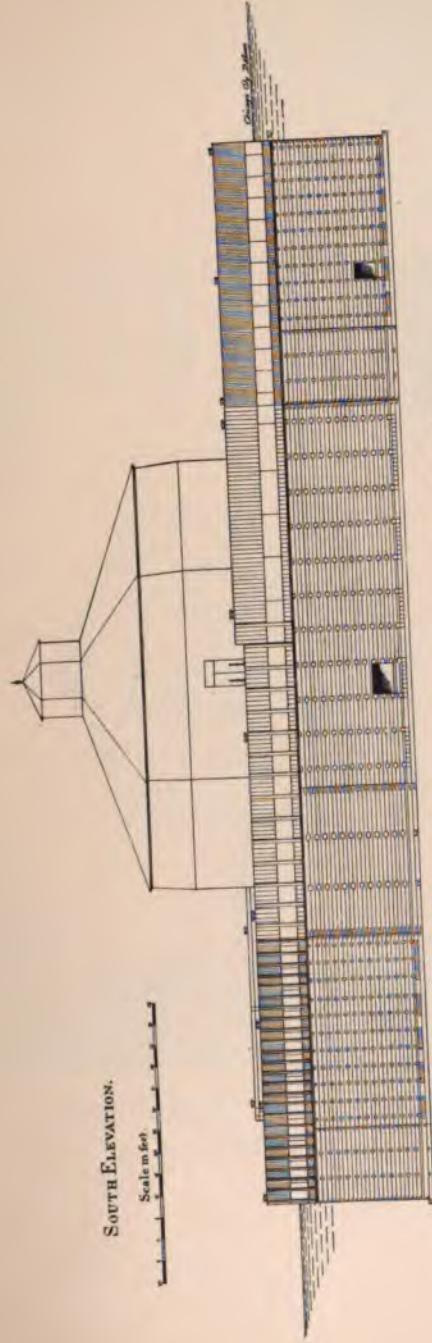
This work was done by the City. Mr. W. D. Hotchkiss, Assistant Engineer, had local charge of the construction of this tunnel.

#### HYDE PARK BREAKWATER.

The ice of the last two winters had so badly damaged the outer Hyde Park crib, which is constructed of timber cribs filled with riprap, as to render it unsafe, and in order to prevent any further

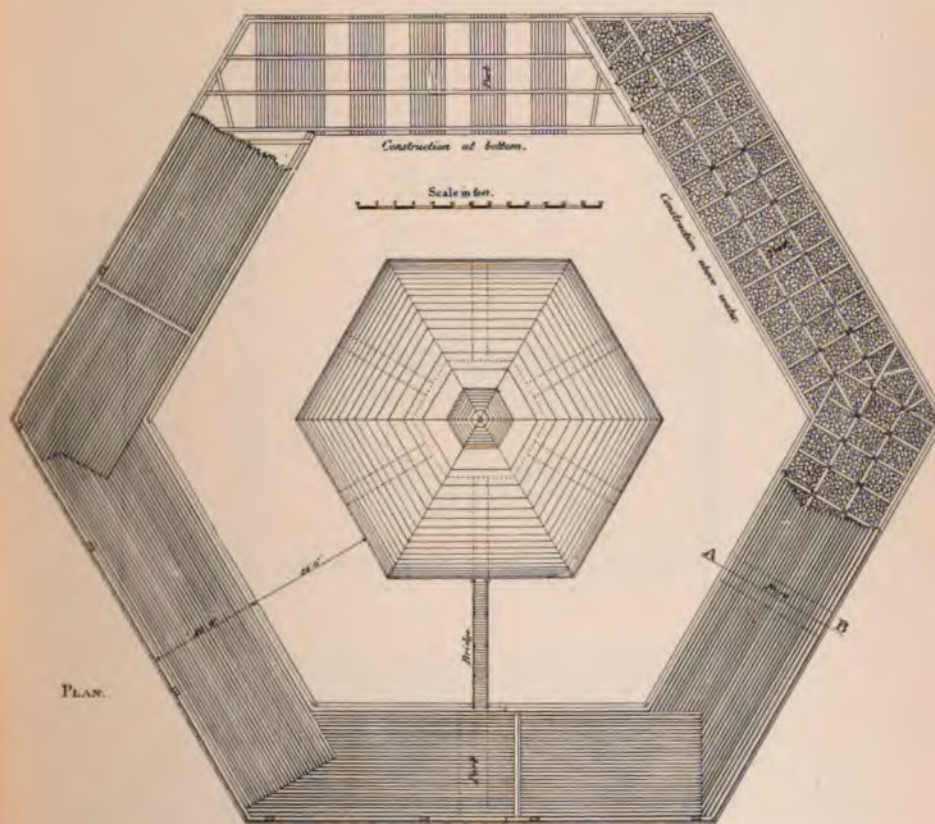


SOUTH ELEVATION.



HYDE PARK CRIB — PROTECTION BREAKWATER.



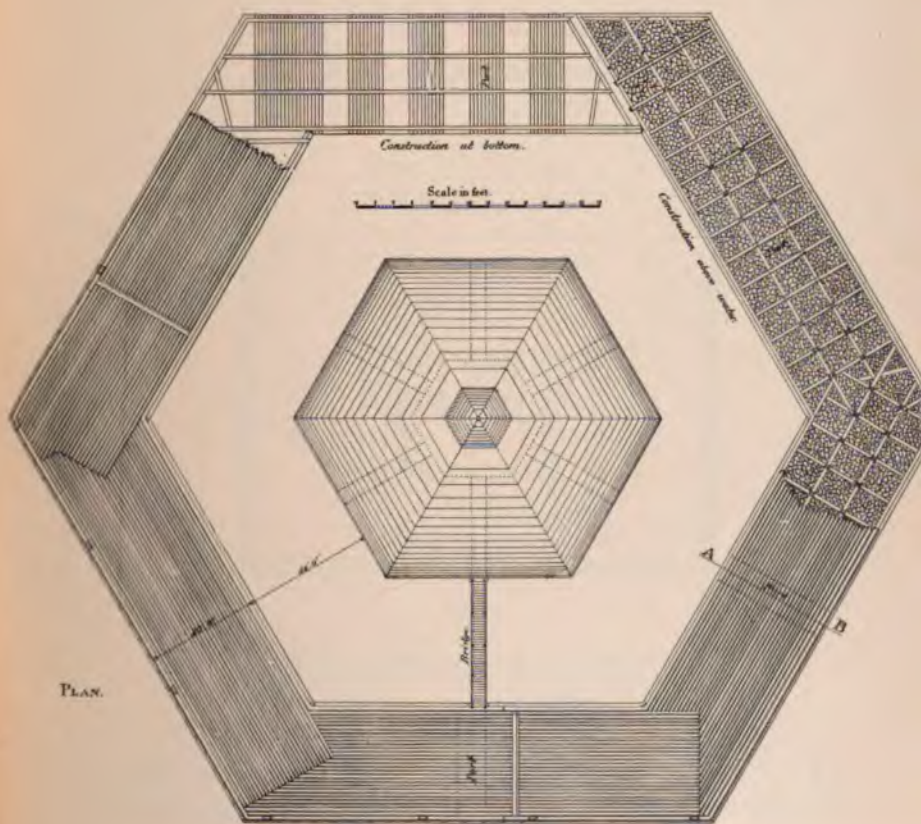


HYDE PARK CRIB—PROTECTION BREAKWATER.

PLAN.

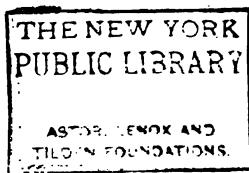


1923

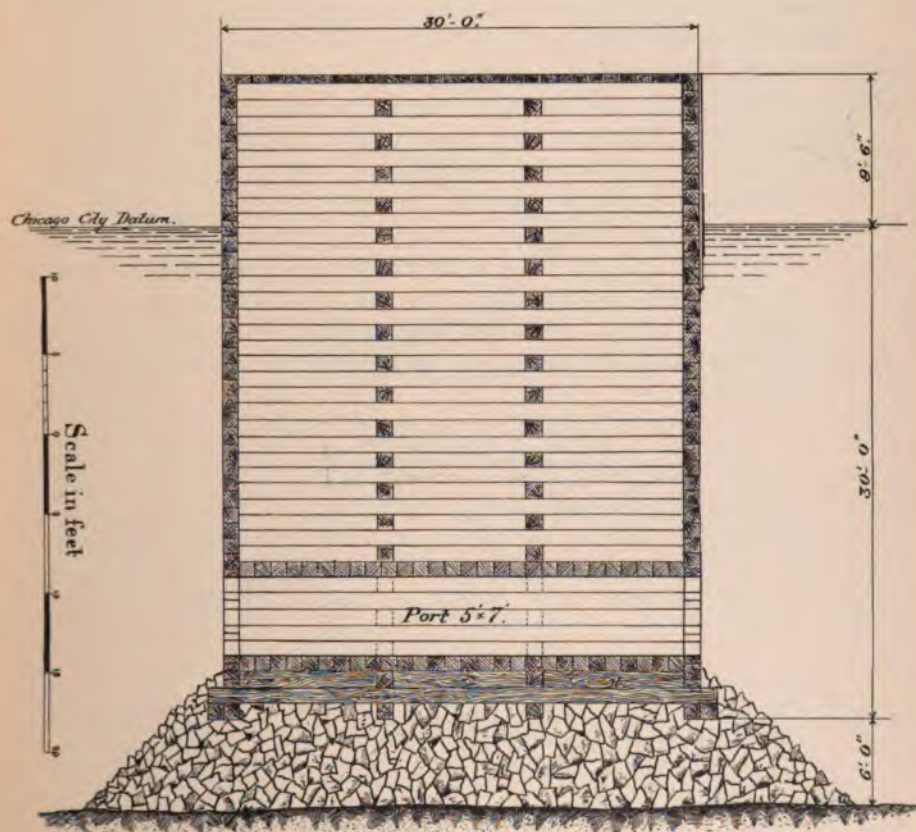


HYDE PARK CRIB—PROTECTION BREAKWATER.

PLAN.







HYDE PARK CRIB—PROTECTION BREAKWATER.

CROSS SECTION.

NEW YORK  
PUBLIC LIBRARY  
ASTOR LENOX AND  
TILDEN FOUNDATIONS

damage, it was decided to protect it by a hexagonal breakwater thirty feet wide. The original plans for this breakwater provided for an opening for the admittance of tug boats between the crib and its breakwater, and the proposed construction was in detail very similar to the one protecting the old two-mile crib off Chicago avenue. The great expense and trouble in keeping the intake at this last mentioned crib free from ice in winter time and other floating matter in the summer, convinced me that the plans were not practicable. New plans were prepared, omitting the opening, and in lieu thereof there were constructed, for the admittance of water, ports 7 feet by 5 feet in size, through four of the six sides forming the breakwater. The detail construction was also changed so as to conform to the latest and most improved practice in such constructions.

This structure, as far as experience of this winter shows, has proved an entire success, reducing the danger of ice blockades to a minimum, and causing a saving to the City for tug boat hire and salaries of about \$3,000 per month during the winter season.

The contract for this work was awarded July 11, 1895, to the FitzSimons & Connell Company, and was completed during the year.

Mr. L. B. Fuller, Assistant Engineer, has been in local charge of the work.

#### NORTH SIDE SHOPS.

MR. E. K. PARKER, Superintendent.

Repairs on machinery and buildings during the year have placed them in good condition, with the exception of the roof of shops 3 and 4, which requires renewing.

The following new pipe-line fixtures and work for the various departments have been made during the year :

#### HYDRANTS—NEW.

	2½-inch Single	2½-inch Double	4-inch Double
On hand January 1, 1895.....	26	23	4
Manufactured during 1895 .....	68	597	11
Total .....	94	620	15
Delivered to Water Pipe Extension .....	94	604	2
On hand January 1, 1896.....		16	13

## STOP-VALVES—NEW.

	4-inch	6-inch	8-inch	12-inch	16-inch	24-inch	*36-inch
On hand January 1, 1895 .....	7	8	8	0	4	8	.....
Manufactured during 1895 .....	10	299	180	87	7	12	.....
Total .....	17	307	188	87	11	15	.....
Delivered to Water Pipe Extension	8	305	118	25	8	11	2
On hand January 1, 1896 .....	9	2	15	12	8	4	1

\* 36-inch valves are not manufactured at these shops.

The expenditures for labor and material during the year are as follows :

68 hydrants, single nozzle, 2½ inches, costing .....	\$ 952 00
597 " double " 2½ " " .....	16,202 58
11 " " " 4 " " .....	330 00
	<u>\$17,484 58</u>
10 stop valves, 4-inch, costing .....	\$ 124 00
299 " " 6 " " .....	5,501 60
130 " " 8 " " .....	3,224 00
37 " " 12 " " .....	1,683 50
7 " " 16 " " .....	859 14
12 " " 24 " " .....	2,126 40
	<u>\$13,518 64</u>
Repairs to hydrants .....	\$ 8,256 43
Repairs to valves .....	2,038 16
Repairing and testing meters .....	4,845 13
	<u>\$15,139 72</u>
Expenditures on account of repairs for water supply system and other departments .....	<u>\$33,662 64</u>



## WATER PIPE EXTENSION.

Mr. H. P. Thompson is Superintendent and Mr. A. R. Porter is Assistant Superintendent.

During the year, 350,405 feet of mains of the following dimensions were laid :

1,428 feet.....	4-inch.
203,645 feet.....	6 "
92,952 feet.....	8 "
17,618 feet.....	12 "
1,177 feet.....	16 "
28,198 feet.....	24 "
2,687 feet.....	36 "

Of this amount of pipe, 136,238 feet of different size pipe have been laid under contract, by special assessment. About twelve miles of pipe, costing \$78,758.61, have been laid at the expense of private parties. Of this amount, \$16,220.59 was advanced by contractors for street improvements, who have been required to advance the money to cover the cost of laying water pipe, where necessary, before going on with the street improvements. The City agrees to refund all money advanced for water pipe when the annual revenue from it pays 10 cents per foot frontage. During the year, 130,526 feet of different size pipe has been laid on revenue and for circulation.

Through the building of the Wentworth avenue sewer, the City was compelled to take up and replace 5,171 feet of 8-inch pipe, 563 feet of 6-inch pipe and 58 feet of 12-inch pipe. The changing of location of 12-inch main in West Lake street, commenced some time prior, was continued during the year between Forty-first avenue and Forty-ninth avenue. Fifty-five hundred and forty-one feet of 12-inch pipe was taken up and relaid by this Department. In doing this work, 944 feet of new pipe was used. The cost of this was charged to the Lake Street Elevated Railroad.

Sixteen hundred and seventy-nine brick hydrant and stop-valve basins were built during the year, and eighty-one composition basins were placed during the same period. In the building of basins and repairs, there have been used 1,828,330 brick and 5,235 barrels of cement.

Five fire cisterns were rebuilt in 1895 at the following locations:

- One at Randolph street and Fifth avenue.
- One at Sedgwick and Oak streets.
- One at Washington and State streets.
- One at Randolph street and Wabash avenue.
- One at Canal and Twelfth streets.

Water mains have been abandoned in the following streets and larger mains put in :

Eagle street from Desplaines street to Halsted street.  
Eighty-third street from Constance street to Anthony avenue.  
Green street from Madison street to Monroe street.  
Superior street from Clark street to Wells street.

Water mains abandoned and same size laid during the year 1895 :  
Ashland avenue from Grand avenue to Austin avenue.  
Poplar avenue from Twenty-ninth street northward.

Four-inch water mains abandoned during the year and not relaid:  
Jefferson street from the south line of Lake street to Randolph.  
Jefferson street from the south line of Fulton street to Lake street.

Thirty-third street from eighty feet west of Armour avenue southward.

Water mains were lowered on the following streets during the year 1895 :

Eddy street from Racine to Clark.  
Fortieth street from 124 feet north of Carroll avenue northward.  
Fortieth street from sixty-six feet north of Carroll avenue northward.

Homan avenue from eighty feet north of Carroll avenue northward.

Hamlin avenue from 284 feet north of Fulton street northward.  
Jefferson avenue from Sixty-eighth street to Seventy-first street.  
Kedzie avenue from sixty-six feet north of Carroll avenue northward.

Kinzie street from Fortieth street westward.

Langley avenue from the north line of Sixty-third street to Sixty-sixth street.

Milwaukee avenue from 375 feet north of Irving Park boulevard to 750 feet northward.

Prairie avenue from Thirty-first street to Thirty-second street.  
Rhodes avenue from Sixty-fourth street to Sixty-sixth street.  
Ross avenue from Indiana avenue to the Alley "L."  
St. Lawrence avenue from Sixtieth street to Sixty-ninth street.  
St. Louis avenue from ninety feet north of Carroll avenue northward.

Seventy-fifth street from Jeffrey avenue to Oglesby avenue.  
Twenty-fifth street from Armour avenue 300 feet westward.

Twenty-seventh street from Armour avenue 300 feet westward.

Twenty-ninth street from Armour avenue 250 feet westward.

Thirtieth street from Armour avenue 275 feet westward.

Thirty-first street from Armour avenue 275 feet westward.

Thirty-second street from Armour avenue 100 feet westward.

Thirty-third street from Armour avenue 250 feet westward.

Thirty-fifth street from Armour avenue 300 feet westward.

Thirty-seventh street from Armour avenue 200 feet westward.

Thirty-eighth street from Armour avenue 200 feet westward.

The accompanying tables show in detail the number of new hydrants and new valves placed, the size and length of pipe laid and name of street and district.

#### HYDRANTS PLACED IN 1895.

DIVISION.	2½-inch Single.	2½-inch Double.	4-inch Double.	Total.
North .....				
South .....	1	6		7
West .....	3	169		172
Hyde Park.....	30	95		125
Lake View.....	27	97		124
Lake .....	11	62		73
Jefferson.....	8	133	2	143
Calumet .....	14	42		56
Total.....	94	604	2	700

During the year 1895 there were taken out in West Division three 2½-inch single hydrants, in South Division one 2½-inch single hydrant, all of which were replaced by 2½-inch double hydrants; also one 2½-inch double hydrant in West Division taken out, which was not replaced.

## TOTAL NUMBER OF FIRE HYDRANTS AT THE CLOSE OF 1895.

DIVISION.	2½-inch Single.	2½-inch Double.	4-inch Double.	2½-inch Double, with one 4-inch Single.	TOTAL.
North .....	417	505	182	...	1,054
South .....	799	1,021	198	.....	2,018
West .....	1,500	3,894	287	.....	5,681
Hyde Park .....	332	1,665	8	605	2,610
Lake View .....	202	997	.....	1	1,200
Lake .....	165	718	2	1,594	2,479
Jefferson .....	105	833	4	.....	942
Calumet .....	118	364	.....	55	537
Total .....	3,633	9,997	576	2,255	16,466

## STOP-VALVES PUT IN DURING THE YEAR 1895.

DIVISION.	SIZE OF VALVES.							TOTAL
	4-in.	6-in.	8-in.	12-in.	16-in.	24-in.	36-in.	
North .....	.....	.....	2	.....	.....	.....	.....	2
South .....	.....	3	2	.....	.....	.....	.....	5
West .....	8	93	31	6	1	.....	.....	134
Hyde Park .....	.....	44	22	6	4	6	2	84
Lake View .....	4	45	10	2	1	.....	.....	62
Lake .....	1	49	17	2	.....	.....	.....	69
Jefferson .....	.....	47	30	8	2	5	.....	92
Calumet .....	.....	24	4	1	.....	.....	.....	29
Totals .....	8	305	118	25	8	11	2	477

During the year 1895, in South Division, one 4-inch valve was taken out, which was not replaced.



TOTAL NUMBER AND SIZE OF VALVES IN USE AT THE  
CLOSE OF 1895.

DIVISION.	SIZE OF VALVES.												TOTAL	
	3-inch.	4-inch.	6 inch.	8 inch.	10-inch.	12-inch.	14-inch.	16-inch.	18-inch.	20-inch.	24-inch.	30-inch.		36-inch.
North .....		164	423	293	...	32	...	13	...	...	12	...	3	940
South .....		155	680	655	...	85	...	25	...	...	29	...	13	1,642
West.....		583	2,163	1,158	...	267	...	72	...	...	31	...	11	4,285
Hyde Park.....		93	986	238	20	71	4	49	...	1	21	...	6	1,489
Lake View. 1		257	659	147	...	31	3	5	...	3	5	...	4	1,115
Lake.....		126	1,029	303	2	66	14	13	2	...	18	...	2	1,575
Jefferson.....		22	423	224	...	61	...	8	...	...	24	...	...	762
Calumet... ..		3	184	67	...	8	...	2	...	...	1	...	...	265
Totals..	1	1,403	6,547	3,085	22	621	21	187	2	4	141	...	39	12,073

## WORK IN DETAIL.

The following tables show in detail the work of water-pipe extension :

## NORTH DIVISION.

STREET	FROM	TO	Length of Pipe in feet	Diameter in inches
Hawthorne avenue.....	Hobbie.....	Northward.....	500	8
Superior .....	Clark .....	Wells .....	667	8
Total feet laid in North Division.....			1,167	

## SOUTH DIVISION.

STREET	FROM	TO	Length of Pipe in feet	Diameter in inches
Carlin .....	Washington .....	Northward .....	88	6
Poplar avenue .....	Crossing .....	Archer avenue .....	36	6
Poplar avenue .....	Twenty ninth .....	Northward .....	675	6
Robey .....	Archer avenue .....	Thirty-fifth .....	375	8
Spaulding avenue .....	Joseph .....	Thirty-ninth .....	353	6
Thirty-first .....	Vermont .....	Robey .....	306	6
† Thirty-second .....	Illinois avenue .....	Auburn avenue .....	390	6
Thirty-fourth .....	Crossing .....	Robey .....	41	6
Thirty-fourth .....	65 ft. E. of Lincoln ..	Archer avenue .....	350	8
Thirty-sixth .....	Hoyne avenue .....	Eastward .....	72	6
Thirty-eighth place .....	Albany avenue .....	Kedzie avenue .....	665	6
† Thirty-eighth .....	St. Louis avenue .....	Central Park avenue ..	669	6
Thirty-ninth .....	Leggitt .....	Westward .....	300	8
Thirty-ninth .....	Spaulding avenue .....	Homan avenue .....	618	6
Total .....			4,868	
Add Branch Pipe for Hydrants .....			12	4
Add Branch Pipe for Hydrants .....			72	6
Total feet laid in South Division .....			4,952	

† Laid by Special Assessment.

## WEST DIVISION.

STREET	FROM	TO	Length of Pipe in feet	Diameter in inches
Alley W. Central Park boulevard...	Augusta.	Southward.....	48	6
*Alley N. Jackson blvd....	Central Park avenue..	Eastward.....	230	4
Alley S. Madison.....	202 ft. E. of Loomis..	Eastward.....	127	6
*Adams.....	Hamlin avenue.....	N. Fortieth avenue...	1,800	6
Albany avenue.....	Crossing.....	Chicago avenue.....	72	6
*Ashland avenue.....	Grand avenue.....	100 ft. N. of Austin av.	280	6
*Armitage avenue.....	Elston avenue.....	41 ft. W. of Mendell..	176	6
*Augusta.....	Grand avenue.....	Kedzie avenue.....	470	6
*Augusta.....	Kedzie avenue.....	Eastward.....	750	6
Augusta.....	Springfield avenue...	Eastward.....	212	8
Beach avenue.....	N. Spaulding avenue..	Eastward.....	285	6
Bonney avenue.....	Colorado avenue.....	Harrison.....	442	6
†Bonney avenue.....	Sixteenth.....	Douglas Park blvd....	1,122	6
Central Park avenue....	Lake.....	Northward.....	25	8
Central Park avenue....	Central Park blvd....	Southward.....	26	6
†Central Park boulevard..	Kedzie avenue.....	Central Park avenue..	2,685	6
Chicago avenue.....	Kedzie avenue.....	150 ft. W. of Central Park blvd.	921	16
†Chicago avenue.....	Kedzie avenue.....	Central Park blvd....	1,088	6
Chicago avenue.....	Crossing.....	Kedzie avenue.....	25	12
Chicago avenue.....	Grand avenue.....	Drummond avenue....	875	6
Christiana avenue.....	Crossing.....	Chicago avenue.....	48	6
*Clarkson.....	Lake.....	Walnut.....	468	6
Colorado avenue.....	141 ft. E. of Medora..	Eastward.....	425	8
*Colorado avenue.....	Medora.....	Eastward.....	141	8
*Colorado avenue.....	50 ft. W. of Hamlin av.	Springfield avenue....	607	8
Colorado avenue.....	Forty-seventh.....	Eastward.....	572	8
*Congress.....	Hamlin avenue.....	Westward.....	1,801	6
Congress.....	Forty-fifth court.....	Eastward.....	41	6
*Cornelia.....	Washtenaw avenue....	Rockwell.....	662	6
*Crystal.....	411 ft. E. of Robey...	Eastward.....	67	4
†Douglas Park blvd., N. S.	Kedzie avenue.....	Troy.....	667	6
Eagle.....	Halsted.....	Desplaines.....	824	6
Erie.....	N. Forty-eighth av...	Westward.....	990	6
Fifty-second avenue, N...	Huron.....	Southward.....	490	8
Fifteenth.....	Trumbull.....	Eastward.....	68	6
†Flournoy.....	Kedzie.....	Albany.....	508	6
†Flournoy.....	320 ft. W. of Kedzie av	Central Park avenue..	2,272	6
†Flournoy.....	California avenue.....	Washtenaw avenue....	615	6
Flournoy.....	310 ft. E. of S. 47th av	Eastward.....	72	6
Fortieth avenue, S.....	Thirty-first.....	Thirty-third.....	1,825	8
Fortieth avenue, N.....	101 ft. N. of Kinzie..	Northward.....	348	12
*Fortieth avenue, S.....	Harrison.....	Madison.....	2,656	8
Forty-first court, S.....	Harvard.....	Northward.....	600	6
Forty-first court, S.....	Crossing.....	Adams.....	76	6
Forty-second avenue, S...	Twelfth.....	Northward.....	177	6
†Forty-second avenue, S...	Twenty-sixth.....	Twenty-eighth.....	625	6
†Forty-second avenue, S...	Harrison.....	Colorado.....	645	6
†Forty-second avenue, S...	Harvard.....	Grenshaw.....	1,059	6
Forty-second avenue, S...	Crossing.....	Adams.....	76	6
Forty-second avenue, S...	Colorado avenue.....	Harvard.....	605	6
†Forty-second avenue, S...	Sixteenth.....	Southward.....	25	6
*Forty-second court, S...	Colorado avenue.....	Northward.....	203	6
†Forty-third avenue, S...	Twenty-second.....	C., B. & Q. tracks...	1,402	6
†Forty-third court, S...	C., B. & Q. Tracks...	Twenty-second.....	1,430	6
Forty-fourth avenue, S...	Madison.....	Lake.....	1,782	8



## WEST DIVISION—CONTINUED.

STREET	FROM	TO	Length of Pipe in feet	Diameter in inches
Forty-fourth avenue, S...	Crossing.....	Twenty-second .....	155	8
Forty-fourth avenue, S...	Adams .....	Southward.....	72	8
†Forty-fourth avenue, S...	Twenty-second .....	C., B. & O. tracks....	1,650	8
Forty-fifth avenue, S...	Adams .....	Southward.....	72	8
Forty-fifth court, S .....	Congress .....	Northward.....	284	6
Forty-seventh avenue, S...	Colorado .....	Lilla .....	313	6
Fulton.....	S. Forty-fourth .....	Eastward.....	25	6
Fulton.....	S. Forty-sixth av .....	Westward .....	336	6
Green .....	Monroe .....	Madison.....	471	6
*Gladys avenue .....	S. Fortieth av .....	Westward .....	29	6
*Gladys avenue .....	Hamlin avenue.....	Westward .....	1,276	6
Hamlin avenue.....	Crossing .....	Chicago avenue .....	31	8
*Hamlin avenue.....	Colorado avenue .....	Madison.....	2,383	8
Hamlin avenue.....	Ogden avenue.....	Twenty second .....	360	6
*Hamlin avenue.....	Twenty-fourth .....	Northward.....	666	8
Hamlin avenue.....	Twenty-sixth .....	Northward.....	250	8
†Hamlin avenue.....	Swift .....	Thirty-first.....	1,426	8
Harding avenue .....	Chicago Terrace .....	Met. Terrace.....	217	6
†Harding avenue .....	Fourteenth .....	Sixteenth.....	1,331	6
Harrison.....	Crossing.....	S. Forty-second av....	24	8
Harvard .....	Springfield avenue .....	Westward .....	340	6
Harvard .....	S. Forty-second avenue .....	Eastward .....	334	6
Harvard .....	S. Forty-second avenue .....	Eastward .....	460	6
†Hawley av .....	Twenty-second .....	C., B. & O. tracks....	1,560	6
Homan avenue .....	Chicago avenue .....	Northward .....	320	8
Homan avenue .....	Central Park blvd .....	Northward.....	30	8
†Homan avenue .....	Twenty-sixth .....	Twenty-eighth .....	1,300	8
Holstein Park, W. S. ....	Hamburg .....	Northward.....	191	6
Huron .....	Hamlin .....	Eastward.....	53	6
Iowa .....	Washtenaw avenue .....	Eastward .....	594	6
*Jackson boulevard .....	Hamlin avenue.....	S. Fortieth avenue....	1,300	6
*Jackson boulevard .....	Central Park avenue..	Eastward .....	177	4
*Lawndale avenue .....	Thirty-first .....	Thirty-fourth .....	2,025	8
†Lexington .....	Central Park avenue..	Lawndale avenue....	612	6
Lilla .....	S. Forty-seventh av....	Westward .....	200	6
Lull place .....	Connecting .....	Milwaukee avenue....	7	6
Madison .....	Connecting .....	Garfield Park blvd ..	15	6
Milwaukee avenue.....	Ashland avenue.....	Wood .....	1,400	12
*Monroe .....	Hamlin avenue .....	S. Fortieth avenue....	1,312	6
Monticello avenue .....	Grand avenue.....	Southward.....	252	8
Monticello avenue .....	Ohio .....	Huron .....	668	8
Monticello avenue .....	Le Moyne .....	Hirsch .....	602	6
†Ogden avenue.....	S. Forty-fourth avenue .....	S. Forty-second .....	1,429	8
Ogden avenue.....	Crossing .....	S. Forty-second avenue .....	31	8
Ogden avenue.....	Central Park avenue ..	Millard avenue.....	314	6
†Park avenue.....	S. Forty-fifth avenue..	S. Forty-sixth avenue..	500	6
Paulina .....	Connecting .....	Milwaukee avenue....	18	6
Pierce avenue .....	Kedzie avenue .....	Westward .....	282	6
Rice .....	Rockwell .....	Washtenaw avenue ..	619	6
Ridgeway avenue.....	Chicago avenue .....	Southward.....	60	6
Rockwell.....	Chicago avenue .....	Rice .....	318	12
Rockwell .....	Jane .....	Southward.....	276	12
Rockwell .....	Crossing .....	Twenty-first.....	90	6
†Sawyer avenue .....	Twenty-sixth.....	Twenty-fourth .....	1,032	6
†Sixteenth, W.....	S. Forty-second av....	S. Forty-third av .....	627	8

## DEPARTMENT OF PUBLIC WORKS.

## WEST DIVISION—CONTINUED.

STREET	FROM	TO	Length of Pipe in feet	Diameter in inches
Sixteenth .....	Trumbull avenue .....	Eastward .....	68	8
Spaulding avenue .....	Adams .....	Colorado avenue .....	254	6
Spaulding avenue .....	Monroe .....	Adams .....	380	6
†Spaulding avenue .....	Twenty-fourth .....	Twenty-sixth .....	962	8
Springfield avenue .....	North avenue .....	Southward .....	258	8
St Louis avenue .....	Twenty-eighth .....	Southward .....	214	8
Superior .....	Forty-seventh .....	Westward .....	225	6
Thirtieth .....	Kedzie avenue .....	Eastward .....	300	6
Thirty-first, W .....	S. Fortieth court .....	S. Fortieth avenue .....	361	8
*Thirty-fourth .....	Lawndale avenue .....	Bonney avenue .....	380	6
Troy .....	Crossing .....	Chicago avenue .....	58	6
Troy .....	Thirtieth .....	Southward .....	452	6
†Trumbull avenue .....	305 ft. S. of Sixteenth .....	Douglas Park blvd .....	1,547	6
Trumbull avenue .....	Sixteenth .....	Douglas Park blvd .....	20	6
†Trumbull avenue .....	328 ft. S. Twenty-second .....	Twenty-third .....	309	6
†Trumbull avenue .....	120 ft. S. Twenty-third .....	Twenty-fifth .....	1,166	6
*Turner avenue .....	Twenty-fifth .....	Northward .....	325	6
*Turner avenue .....	Twenty-sixth .....	Southward .....	598	6
*Twenty-first, W .....	Rockwell .....	Eastward .....	667	6
†Twenty-second, S. S. ....	S. Fortieth av. ....	S. Forty-fourth avenue .....	2,604	6
†Twenty-second, N. S. ....	S. Fortieth av. ....	S. Forty-fourth avenue .....	2,618	6
Twenty-third .....	Connecting .....	Hamlin avenue .....	41	6
Twenty-fourth .....	Trumbull avenue .....	Eastward .....	75	6
Twenty fifth .....	Trumbull avenue .....	Eastward .....	70	6
*Van Buren .....	Hamlin avenue .....	S. Fortieth avenue .....	1,800	6
*Wilcox avenue .....	Hamlin avenue .....	S. Fortieth avenue .....	1,800	6
Total .....			81,829	
Add Branch Pipe for Hydrant .....			86	4
Add Branch Pipe for Hydrant .....			2,028	6
Total feet laid in West Division .....			83,893	

\*Laid by Deposit.

†Laid by Special Assessment.

## HYDE PARK DISTRICT.

STREET	FROM	TO	Length of Pipe in feet	Diameter in inches
*Alley W. of Drexel blvd.	Forty-fourth	Northward	355	6
Alley W. of Drexel blvd.	Forty-fifth	Southward	240	6
Alley E. of Grand blvd.	Forty-ninth	Southward	188	6
Alley W. of Grand blvd.	158 ft. N. Forty-eighth	159 ft. S. Forty-eighth	383	4
Alley E. of Grand blvd.	Ione place	Forty-ninth	331	6
Bissell avenue	Seventy-third	Southward	36	6
Buffalo avenue	Eighty-seventh	Ninety-second	3,330	24
Calumet avenue	336 ft. S. of Fifty-ninth	Southward	264	6
Calumet avenue	Sixtieth	Southward	408	6
†Carlin avenue	Seventy-ninth	Eighty-first	1,360	6
†Central avenue	Seventy-ninth	Eighty-third	2,586	6
†Champlain avenue	Sixty-seventh	Sixty-eighth	672	6
Eighty-third	Yates avenue	Superior avenue	5,617	24
Eighty-third	Constance	Anthony avenue	264	8
†Eighty-third	Anthony	Elizabeth	1,413	8
Eighty-seventh	Superior avenue	Buffalo avenue	232	24
*Eighty-ninth	Marquette avenue	Saginaw avenue	380	6
†Elizabeth avenue	Eighty-first	Eighty-third	1,311	6
†Ewing avenue	Ninety fifth	Ninety eighth	1,939	6
Forty-eighth	175 ft. W. Langley av.	Champlain avenue	180	6
Forty-eighth	Crossing	Greenwood avenue	48	6
Fiftieth	Crossing	Cottage Grove avenue	192	6
Fifty-second	Hibbard	Madison avenue	450	6
Fifty-third	Horton avenue	Ellis avenue	425	8
Fifty-sixth	Indiana avenue	Eastward	400	6
Fifty-eighth	Madison avenue	Monroe avenue	440	6
Harbor avenue	Ninety-second	S. Chicago avenue	1,919	24
Indiana avenue	113th	Northward	53	6
†Jeffrey avenue	Seventy-ninth	Eighty-third	2,642	8
Madison avenue	Eighty-third	Southward	348	6
*Marquette avenue	Eighty-eighth	Eighty-ninth	680	6
Michigan avenue	103d	50 ft. N. of 100th place	1,741	6
McChesney avenue	Sixty-sixth	Southward	444	6
Ninety-first	Crossing	Buffalo avenue	47	16
Ninety-second	Buffalo avenue	Harbor avenue	311	24
Ninety-second	Crossing	Harbor avenue	48	8
Ninety second	Connecting	Harbor avenue	24	12
Ninety-second	Connecting	Harbor avenue	24	16
†Ninety-third	Stony Island avenue	Luella avenue	4,380	8
Ninety-seventh	Commercial avenue	Exchange avenue	378	6
†Ninety-ninth place	Michigan avenue	State	890	6
†Ninety-ninth	Indiana avenue	Michigan avenue	435	12
Nutt avenue	40 ft. N. Seventy-first	23 ft. S. Seventy-first pl.	332	6
†100th	Michigan avenue	State	935	6
106th	40 ft. E. of Hoxie av.	Westward	312	8
113th	South Park avenue	Eastward	400	6
114th	Michigan avenue	Westward	182	6
119th	Connecting	Michigan avenue	58	8
Plaisance court	Washington avenue	Eastward	128	6
Ross avenue	Indiana avenue	Eastward	600	6
Rupp avenue	Ninety-third	Southward	214	6
*Saginaw avenue	Eighty-ninth	Northward	215	6
Sixty-second	Woodlawn avenue	Eastward	225	6
Sixty-fourth	Crossing	Rhodes avenue	60	6
Sixty-fourth	Crossing	Langley avenue	60	6

## HYDE PARK DISTRICT—CONTINUED.

STREET	FROM	TO	Length of Pipe in feet	Diameter in inches
Sixty-fourth .....	Crossing .....	St. Lawrence avenue..	78	6
Sixty-fifth .....	Crossing .....	Langley avenue .....	60	6
Sixty-fifth .....	Crossing .....	Rhodes avenue .....	72	6
Sixty-fifth .....	Crossing .....	St. Lawrence avenue..	81	6
Sixty-fifth .....	Wharton avenue .....	Westward .....	175	6
*Sixty-fifth .....	Woodlawn .....	Eastward .....	180	6
Sixty-sixth .....	Crossing .....	St. Lawrence avenue..	81	6
Sixty-sixth .....	Crossing .....	Langley avenue .....	60	6
Sixty-sixth .....	Crossing .....	Rhodes avenue .....	60	6
Sixty-eighth .....	Crossing .....	St. Lawrence avenue..	72	6
Sixty-ninth .....	S. Park avenue .....	Vernon avenue .....	886	6
Superior avenue .....	Eighty-third .....	Eighty-seventh .....	2,658	24
*Seventy-first .....	S. Park avenue .....	St. Lawrence avenue..	1,260	8
Seventy-third .....	La Salle avenue .....	Westward .....	254	6
Seventy-third place .....	Railroad avenue .....	Eastward .....	252	6
†Seventy-ninth .....	Carlin avenue .....	Duncan avenue .....	532	12
†State .....	Seventieth .....	Seventy-fifth .....	3,325	8
St. Lawrence avenue .....	Sixty-fifth .....	Sixty-seventh .....	1,877	6
*South Park avenue .....	Sixty-third .....	Sixty-seventh .....	2,668	8
South Park avenue .....	118th .....	Southward ..	300	8
Vernon avenue .....	Sixty-seventh .....	Sixty-sixth .....	656	6
Vernon avenue .....	Crossing .....	Sixty-ninth .....	20	6
Vincennes avenue .....	400 ft. S. of Sixty-fifth	260 ft. S. of Sixty-sixth	676	6
Wabash avenue .....	Sixty-ninth .....	Southward .....	390	6
†Wabash avenue .....	390 ft. S. of Sixty-ninth	Seventy-first .....	866	6
Wabash avenue .....	107th .....	Southward .....	348	6
†Wendell avenue .....	Seventy-ninth .....	Eighty-first .....	1,860	6
Woodlawn avenue .....	Seventy-first .....	Seventy-second .....	675	8
Yates avenue .....	Seventy-ninth .....	Eighty-third .....	2,687	36
Total .....			62,083	
Add Branch Pipe for Hydrants .....			860	4
Add Branch Pipe for Hydrants .....			1,140	6
Total feet laid in Hyde Park .....			63,583	

\*Laid by deposit.

†Laid by Special Assessment.



## LAKE VIEW DISTRICT.

STREET	FROM	TO	Length of Pipe in feet	Diameter in inches
of East Ravenswood Park ..	Foster avenue.....	Berwyn avenue.....	641	6
of East Ravenswood Park ..	Connecting.....	Berwyn avenue.....	115	6
on .....	Western avenue.....	Eastward.....	60	16
nd avenue .....	Bryn Mawr avenue.....	125 ft. N. Edgewater av.	1,050	6
pral avenue .....	W. Ravenswood Park.	Robey.....	1,149	6
au avenue.....	Lincoln avenue.....	Robey.....	657	8
yn avenue.....	Robey.....	W. Ravenswood Park.	1,157	6
yn avenue.....	Leavitt.....	Palifox court.....	332	6
Mawr avenue .....	Clark.....	Hamilton avenue.....	1,150	8
en avenue.....	Clark.....	Southport avenue.....	932	6
en avenue.....	110 ft. W. Ashland av.	E. Ravenswood Park..	728	6
en avenue.....	510 ft. W. Ashland av.	Connection.....	24	6
mont avenue.....	166 ft. N. Sunnyside av.	Northward.....	75	6
mont avenue.....	Cosgrove avenue.....	Northward.....	168	6
mont avenue.....	Cosgrove avenue.....	Southward.....	283	6
lia.....	Reta.....	Rokeby.....	328	6
ove.....	Commercial avenue...	E. Ravenswood Park..	400	6
.....	50 ft. N. of School...	Southward.....	470	4
.....	Sheffield avenue.....	Eastward.....	170	4
ood avenue.....	Western avenue.....	Eastward.....	114	6
water avenue.....	Ashland avenue.....	Hamilton avenue.....	850	6
gut avenue.....	N. Lincoln.....	Robey.....	831	6
gut avenue.....	N. Paulina.....	Alley E. of E. Ravenswood Park	460	6
gut avenue.....	N. Lincoln.....	W. Ravenswood Park ..	333	6
gut avenue.....	Leavitt.....	Oakley avenue.....	628	6
avenue.....	Robey.....	E. Ravenswood Park ..	1,411	6
e.....	Robey.....	North Lincoln.....	973	6
.....	Western avenue.....	Eastward.....	60	12
.....	Hoynes.....	Robey.....	660	8
.....	Lincoln avenue.....	W. Ravenswood Park..	558	6
venue.....	Racine avenue.....	Westward.....	636	6
land avenue.....	Irving avenue.....	N. Branch of Chicago River ..	2,381	8
l avenue.....	Winthrop avenue.....	Westward.....	275	8
lton avenue N.....	Grace.....	Graceland avenue.....	1,325	6
wood avenue.....	Ashland avenue.....	Hamilton avenue.....	850	6
e avenue.....	Sunnyside avenue.....	Southward.....	408	6
e avenue.....	Graceland avenue.....	Grace.....	1,319	6
avenue.....	Cosgrove avenue.....	Northward.....	168	6
avenue.....	Cosgrove avenue.....	Southward.....	283	6
nce avenue.....	Sheffield avenue.....	Lake Michigan.....	256	6
ln avenue.....	Montrose boulevard ..	156 ft. S. of Wilson...	1,235	8
tt.....	166 ft. N. of Berwyn..	Foster avenue.....	855	6
tt.....	Graceland avenue.....	Byron.....	663	6
ln.....	Berwyn avenue.....	Balmoral avenue.....	685	6
ln avenue.....	44 ft. N. of Wilson ..	Southward.....	200	8
court.....	Foster avenue.....	Northward.....	28	6
Fifty-ninth.....	Leavitt.....	Oakley avenue.....	650	6
ale avenue.....	Robey.....	133 ft. E. of W. Ravenswood Park	1,204	6
y avenue .....	Cosgrove avenue.....	Northward.....	168	6
y avenue.....	Cosgrove avenue.....	Southward.....	283	6
y avenue.....	Graceland avenue.....	Southward.....	31	6
y avenue.....	Winnemac avenue.....	North Fifty-ninth .....	1,050	6
venue.....	Ashland avenue.....	Hamilton avenue.....	850	6
x court.....	Berwyn avenue.....	Northward.....	300	6
na.....	Diversey avenue.....	Southward.....	399	6

## LAKE VIEW DISTRICT—CONTINUED.

STREET	FROM	TO	Length of Pipe in feet	Diameter in inches
Paulina .....	Glenlake avenue .....	Northward .....	153	6
†Paulina .....	Foster avenue .....	Berwyn avenue .....	700	6
*Ravenswood Park, W. ....	Wellington avenue .....	Oakdale avenue .....	356	6
†Ravenswood Park, W. ....	Foster avenue .....	Southward .....	49	6
Ravenswood Park, E. ....	Foster avenue .....	Southward .....	50	6
*Ridge avenue .....	N. Hermitage avenue .....	E. Ravenswood Park ..	455	6
*Robey .....	Oakdale avenue .....	Noble avenue .....	1,297	6
Roscoe .....	Western avenue .....	Eastward .....	20	12
*Seeley avenue .....	Grace .....	Graceland avenue ...	1,325	6
*Seeley avenue .....	Addison .....	Cornelia .....	720	6
Seminary avenue .....	Waveland avenue .....	Northward .....	261	4
*Seminary avenue .....	Grace .....	Southward .....	465	4
†Summerdale avenue .....	W. Ravenswood Park ..	Robey .....	1,152	6
Wellington avenue .....	139 ft. E. of Robey ...	W. Ravenswood Park ..	938	6
Western avenue .....	Roscoe .....	Southward .....	25	8
*Western avenue .....	Wilson .....	Eastwood avenue .....	336	8
†Western avenue .....	Haynes avenue .....	Roscoe .....	8,569	8
*Western avenue .....	Sunnyside avenue .....	Northward .....	880	8
Wilson avenue .....	Ashland avenue .....	Eastward .....	215	6
†Wilton avenue .....	Grace .....	Byron .....	630	6
*Winthrop avenue .....	Rosemont avenue .....	Devon avenue .....	668	6
*Wolfram .....	Robey .....	North Lincoln .....	978	6
Total .....			48,905	
Add Branch Pipe for Hydrants .....			324	4
Add Branch Pipe for Hydrants .....			1,164	6
Total feet laid in Lake View District .....			50,393	

\* Laid by Deposit.

† Laid by Special Assessment.

## LAKE DISTRICT.

STREET	FROM	TO	Length of Pipe in feet	Diameter in inches
†Alley 1st S. of Fifty-fifth	Center avenue	Loomis	1,293	6
*Alley 1st N. of Fifty-fifth	Loomis	Westward	182	6
Alley 1st S. of Fifty-fifth	Crossing	Loomis	61	6
Alley 1st S. of Fifty-fifth	Connecting	Center avenue	4	6
†Aberdeen	Seventy-third	Southward	162	6
†Ada	Alley S. of Fifty-fifth	Fifty-seventh	974	6
†Ashland avenue	Fifty-ninth	Sixty-third	2,676	8
Ashland avenue	Fifty-ninth	Northward	24	8
Ashland avenue	Crossing	Sixty-third	53	8
†Bishop	Sixtieth	Sixty-third	1,985	6
Bishop	Crossing	Sixth-third	41	6
†Bishop	Fifty-eighth	Fifty-ninth	340	6
*Butler	Thirty-ninth	Southward	411	6
Butler	Fortieth	Northward	186	6
California avenue	Fortieth place	Southward	66	6
*Dearborn	Fifty-ninth	Northward	412	6
*Elizabeth	Fifty-ninth	Sixtieth	636	6
Fortieth place	California avenue	Underwood avenue	666	6
Forty-fourth	Albany avenue	Westward	485	6
Forty-sixth	Union avenue	Eastward	200	4
Fiftieth	Crossing	Fifth avenue	66	6
Fifty-second	Crossing	Fifth avenue	66	6
Fifty-third	Center avenue	Morgan	1,149	6
†Fifty-fourth	Robey	Seeley avenue	346	6
Fifty-fourth	Butler	Westward	240	6
Fifty-sixth	Halsted	Green	298	6
Fifty-eighth	Crossing	Carpenter	66	6
Fifty-eighth	Wood	Hermitage avenue	330	6
Hamilton avenue	Sixty-third	Sixty-seventh	2,654	8
Loomis	Alley 1st S. of Fifty-fifth	Southward	280	6
Marshfield avenue	Fifty-first	Southward	250	6
Marshfield avenue	Fifty-third	Northward	150	6
Morgan	Seventy-second	Seventy-third	691	8
*Paulina	1st Alley N. of Fifty-fifth	Fifty-fourth	458	6
Peoria	Crossing	Fifty-first court	66	6
†Robey	Fifty-third	Fifty-fourth	673	8
†Robey	Sixty-third	Sixty-seventh	2,654	8
Sangamon	Eighty-sixth	Northward	300	6
Sangamon	Sixty-ninth	Northward	325	6
Sacramento avenue	Fortieth place	Southward	560	6
†Seeley avenue	Fifty-fourth	Northward	178	6
Sixtieth	Crossing	Ashland avenue	90	6
Sixty-first	Crossing	Ashland avenue	90	6
Sixty-second	Crossing	Ashland avenue	90	6
Sixty-third	Ashland avenue	Marshfield avenue	300	12
Sixty-third	Crossing	Ashland avenue	105	12
Sixty-sixth	Crossing	Green	66	6
*Sixty-eighth	Emerald avenue	Sherman	809	6

## DEPARTMENT OF PUBLIC WORKS.

## LAKE DISTRICT—CONTINUED.

STREET	FROM	TO	Length of Pipe in feet	Diameter in inches
South Normal Parkway ..	Stewart avenue .....	Eastward .....	410	6
Troy .....	Forty-fourth .....	Southward .....	225	6
Union avenue .....	Sixty-first .....	Northward .....	166	6
Union avenue .....	Sixty-third .....	Southward .....	182	6
Vincennes road .....	Seventy-fourth .....	Southward .....	155	8
Wentworth avenue .....	Seventy-fourth .....	Southward .....	155	8
Total .....			25,872	
Add Branch Pipe for Hydrants .....			132	4
Add Branch Pipe for Hydrants .....			744	6
Total feet laid in Lake District .....			26,748	

\*Laid by Deposit.

†Laid by Special Assessment.



## ENGINEER'S REPORT.

41

## JEFFERSON DISTRICT.

STREET	FROM	TO	Length of Pipe in feet	Diameter in inches
*Albany avenue	Conneaut avenue	Humboldt boulevard	550	6
Albany avenue	Elston avenue	Grace	2,264	6
Asbert avenue	Western avenue	Westward	840	6
*Ballou	Diversey avenue	Marianna	643	6
†Berteau avenue	Western avenue	Westward	803	8
*Belleplain avenue	Western avenue	Westward	660	6
Belmont avenue	Crossing	Western avenue	100	16
*Belmont avenue	75 ft. E. California av.	91 ft. E. of Laurel av.	716	6
*Broad Oak avenue	Ormonde avenue	Emerson road	234	6
Carmen avenue	Crossing	Lincoln avenue	96	6
*Carpenter road	Chicago river	Prescott avenue	878	8
†Carpenter road	Carpenter court	Chicago river	4,564	8
*Central Park avenue	Medill avenue	Fullerton avenue	336	8
*Clifton avenue	Greenwood avenue	146 ft. S. of Humboldt boulevard	427	6
Conneaut avenue	Wallace	Westward	25	6
†Cosgrove avenue	Western avenue	Westward	840	6
*Crescent road	220 ft. S. of Lorain pl.	Enfield avenue	1,148	6
Dakin	N. Forty-eighth av.	N. Forty-ninth avenue	643	6
†Diversey avenue	Milwaukee avenue	Kedzie avenue	1214	8
Diversey avenue	Crossing	Hamlin avenue	43	8
†Diversey avenue	Homan avenue	Hamlin avenue	2,599	8
*Dunning	136 ft. W. of Monticello avenue	Lawndale avenue	200	6
Dunning	Monticello avenue	Westward	136	6
*Dunning	Spaulding avenue	Campbell avenue	370	6
Eddy	Irving avenue	N. Forty-first court	240	6
*Ellerton avenue	Fountain avenue	Dixon avenue	785	6
*Emerson road	Ellerton avenue	Broad Oak avenue	87	6
*Enfield avenue	Ellerton avenue	Prescott avenue	650	6
*Fairfield avenue	Armitage avenue	Courtland	660	6
†Fiftieth court, N.	Armitage avenue	Wrightwood avenue	1,245	6
Fiftieth court, N.	Crossing	Armitage avenue	20	6
†Fiftieth avenue, N.	Armitage avenue	Medill avenue	2,375	8
Fiftieth avenue, N.	Crossing	Armitage avenue	5	8
Fortieth avenue, N.	Courtland	Southward	144	12
Forty-first avenue, N.	Grace	Byron	193	6
Forty-third avenue, N.	Montrose avenue	Northward	502	6
Forty-fourth avenue, N.	Holcomb avenue	Belleplain avenue	479	8
Forty-fourth avenue, N.	100 ft. S. of Wabasha avenue	Northward	690	8
Forty-fourth court, N.	Sunnyside avenue	Northward	251	6
Forty-fifth avenue, N.	41 ft. S. of Irving Park blvd.	Southward	608	6
Forty-fifth avenue, N.	Leland avenue	Northward	291	8
†Forty-eighth avenue, N.	Wrightwood avenue	Medill avenue	1,078	8
Forty-eighth avenue, N.	Milwaukee avenue	Dakin avenue	407	8
Franklin	Laurel avenue	Westward	334	6
*Francisco avenue	Diversey avenue	Northward	517	6
*Fullerton avenue	Central Park avenue	Monticello avenue	841	12
Grace	Western avenue	Westward	24	8
†Grace	Albany avenue	Sacramento avenue	644	6
Grace	Western avenue	Westward	834	6
†Grand avenue	N. Fifty-second avenue	N. Sixtieth avenue	5,656	8
Gunnison avenue	Everett	Williams	620	6
*Hancock avenue	Diversey avenue	Marianna avenue	644	6
*Homan avenue	Montrose avenue	200 ft. S. of Berteau av.	1,524	8
Humboldt avenue	N. Forty-fourth avenue	Eastward	812	6
*Humboldt avenue	Diversey avenue	254 ft. N. of Franklin avenue	910	6

## JEFFERSON DISTRICT—CONTINUED.

STREET	FROM	TO	Length of Pipe in feet	Diameter in inches
Humboldt avenue	Diversey avenue	345 ft. S. of Conneaut avenue	1,021	6
*Irving Park boulevard	Milwaukee avenue	Westward	5,500	12
Irving Park boulevard	5,500 ft. W. Milwaukee avenue	Westward	5,832	12
Irving Park boulevard	N. Forty-fifth avenue	Westward	99	12
Irving Park boulevard	N. Sixty-fifth avenue	Westward	571	12
Irving Park boulevard	W. of N. Sixty-fourth avenue	North to Poor House	34	8
†Kedzie avenue	Milwaukee avenue	Diversey avenue	1,043	8
†Kedzie avenue	388 ft. N. of Diversey avenue	Garden avenue	904	8
Lawndale avenue	320 ft. N. of Dunning	Northward	170	6
*Lawndale avenue	Dunning	Northward	320	6
Lawndale avenue	400 ft. N. of North av	172 ft. N. of Wabansia avenue	425	6
Lawndale avenue	392 ft. S. of Armitage av	Courtland avenue	232	6
Laurel avenue	Franklin avenue	Northward	517	6
Laurel avenue	Crossing	Belmont avenue	22	6
†Lutz avenue	Western avenue	Westward	840	6
*Meade avenue	N. Fifty-ninth	Northward	436	6
†Medill avenue	N. Fiftieth avenue	N. Forty-eighth avenue	1,375	6
Medill avenue	Central Park avenue	Westward	41	6
McLean avenue	Crossing	N. Forty-third avenue	36	6
Monticello avenue	Armitage avenue	Southward	370	6
Monticello avenue	294 ft. N. of Fullerton avenue	W. Dunning	378	6
*Monticello avenue	Fullerton avenue	Northward	294	6
Monticello avenue	425 ft. N. of North av	325 ft. N. of Wabansia avenue	545	6
Montrose avenue	N. Forty-third avenue	Westward	330	8
Montrose avenue	N. Forty-eighth avenue	Westward	290	8
*Montrose avenue	Homan avenue	Prospect avenue	303	8
Mozart	Diversey avenue	Northward	363	6
North avenue	Crossing	Western avenue	26	8
North avenue	Crossing	Western avenue	25	16
†North Fifty-ninth	1,517 ft. W. of Lincoln avenue	Central Park avenue	4,778	6
Norwood Park avenue	Crossing	Grace	106	6
*Ormonde avenue	Carpenter road	Broad Oak avenue	471	6
*Pensacola avenue	Campbell avenue	Westward	587	4
*Prescott avenue	Enfield avenue	Carpenter road	800	8
*Prospect avenue	Prescott avenue	Montrose avenue	1,921	6
†Ridgeway avenue	George	Milwaukee avenue	1,080	6
Spaulding avenue	285 ft. S. of Humboldt	Dickens avenue	324	6
*Spaulding avenue	Fullerton avenue	Wrightwood avenue	1,250	6
Stave	Cornelia	Eastward	172	6
†Theodosia avenue	Milwaukee avenue	Austin avenue	2,327	6
Wabansia avenue	Central Park avenue	156 ft. W. of Ridgeway avenue	1,141	8
Western avenue	Belmont avenue	Noble avenue	681	24
Western avenue	Homer	North avenue	2,249	24
Western avenue	Franklin avenue	Armitage avenue	6,042	24
Western avenue	166 ft. S. of Irving Park avenue	Belmont avenue	5,164	24
Western avenue	Belmont avenue	Northward	20	8
Winona	Crossing	Lincoln avenue	99	6
Total			94,901	
Add Branch Pipe for Hydrants			96	4
Add Branch Pipe for Hydrants			1,620	6
Total feet laid in Jefferson			96,617	

\*Laid by Deposit.

†Laid by Special Assessment.

## CALUMET DISTRICT.

STREET	FROM	TO	Length of Pipe in feet	Diameter in inches
Carpenter .....	155 ft. S. of Eighty-eighth ..	Eighty-ninth.....	450	6
†Clinton .....	118th .....	119th .....	598	6
Eighty-eighth.....	Canal .....	Holland road .....	1,181	6
Fifth avenue.....	Crossing .....	121st .....	187	6
Harvard .....	300 ft. N. of Eighty-eighth ..	Eighty-ninth .....	988	6
†Hilliard avenue .....	104th .....	107th .....	1,975	6
Holland road .....	Eighty-eighth .....	Vale .....	116	6
Jefferson avenue.....	115th .....	107 ft. S. of 116th .....	795	6
†Loomis .....	Ninetieth .....	Ninety-fifth.....	3,295	6
Morgan .....	146 ft. N. of 119th.....	117th .....	1,112	6
103d .....	Wentworth avenue .....	Park avenue .....	1,288	12
104th .....	Hilliard avenue .....	Vincennes road.....	476	6
106th .....	Prospect avenue .....	Westward .....	230	6
111th place .....	283 ft. W. of Portland avenue.	Stewart avenue .....	341	6
112th place .....	236 ft. W. of Wentworth avenue	Portland avenue.....	283	6
113th place .....	120 ft. E. of Butterfield	150 ft. E. of Wentworth av ..	540	6
113th .....	Butterfield .....	Eastward .....	209	6
117th .....	Union avenue .....	Lowe avenue .....	490	6
†118th .....	Canal .....	Wallace .....	995	6
118th .....	Morgan .....	Sangamon .....	832	6
118th .....	Connecting .....	Scanlan avenue .....	22	6
†118th .....	Stewart avenue .....	Canal .....	310	6
119th .....	Halsted .....	Sangamon .....	1,002	8
Peoria .....	119th .....	117th .....	1,282	6
Sangamon .....	119th .....	117th .....	1,283	6
Scanlan avenue.....	119th .....	118th .....	636	6
Union avenue .....	117th .....	Southward... ..	218	6
Vincennes road..	104th .....	Southward... ..	185	6
Vincennes road.....	210 ft. S. of 104th .....	W. to Pumping Station	93	6
Webster avenue .....	300 ft. N. of Eighty-eighth..	Eighty-ninth.....	997	6
Yale .....	Holland road .....	Eighty-ninth.....	517	6
Total .....			22,380	
Add Branch Pipe for Hydrants .....			168	4
Add Branch Pipe for Hydrants .....			504	6
Total feet laid in Calumet District .....			23,052	

†Laid by Special Assessment.

## RECAPITULATION OF PIPE LAID DURING 1895, INCLUDING HYDRANT BRANCHES.

DIVISION.	DIAMETER OF PIPE IN INCHES.							Total length of
	4-inch.	6-inch.	8-inch.	12-inch.	16-inch.	24-inch.	36-inch.	Pipe in Feet.
North .....	.....	.....	1,167	.....	.....	.....	.....	1,167
South .....	12	3,915	1,025	.....	.....	.....	.....	4,952
West.....	500	56,576	23,529	2,367	921	.....	.....	83,893
Hyde Park.....	743	27,259	17,770	991	71	14,062	2,687	63,533
Lake View.....	1,690	37,695	10,868	80	60	.....	.....	50,393
Lake.....	332	16,276	9,785	405	.....	.....	.....	26,743
Jefferson.....	683	41,830	27,856	12,487	125	14,136	.....	96,617
Calumet.....	168	20,594	1,002	1,288	.....	.....	.....	23,052
Total in feet.....	4,128	203,645	92,952	17,618	1,177	28,196	2,687	350,405



TABLE SHOWING AMOUNT OF PIPE IN THE CITY OF CHICAGO,  
AT THE CLOSE OF 1895.

Diameter of Pipe.	1894.	1895.			
	Amount in Use in Feet.	Amount Taken Up or Abandoned in Feet.	Amount Laid in Feet.	Grand Total in Feet in Use at the close of 1895.	Grand Total in Miles.
48	1,355	.....	.....	1,355	0.1135
36	115,250	.....	2,687	117,937	22.1777
30	5,351	.....	.....	5,351	1.1150
28	160	.....	.....	160	.1100
24	250,804	.....	28,198	279,002	52.1111
20	7,931	.....	.....	7,931	1.1111
18	1,000	.....	.....	1,000	0.1111
16	238,887	.....	1,177	235,064	44.1111
14	22,552	.....	.....	22,552	4.1111
12	475,997	.....	17,618	493,615	93.1111
10	26,860	.....	.....	26,860	5.1111
8	1,662,865	.....	92,952	1,755,817	332.1111
6	4,262,294	1,146	203,645	4,464,793	845.1111
4	1,091,551	2,812	4,128	1,092,867	206.1111
3	8,996	.....	.....	8,996	1.1111
Total in feet.....	8,166,853	3,958	350,405	8,513,300	.....
Total in miles....	1,546.1111	0.1111	66.1111	1,612.1111	1,612.1111

Amount of wooden pipe in use in Norwood Park, 16,618 feet of 4-inch and 325 feet of 6-inch, not included in above.

## DIVISION OF BRIDGE AND VIADUCT CONSTRUCTION.

MR. A. G. RITER, Bridge Engineer, in charge.

Van Buren Street Bridge.—This structure, which was fully described and illustrated in the annual report for 1894, was completed and formally opened to traffic on Monday, February 4, 1895, the work having been prosecuted without interruption from January 4, 1894, when the old bridge was closed to traffic and the work of demolition begun. The cost of the structure was as follows:

Substructure .....	\$ 79,600 00
Superstructure .....	73,100 00
Electric Equipment.....	11,150 00
Engineering and Inspection.....	5,850 00

TOTAL.....\$169,700 00

West Van Buren Street Viaduct.—This structure was built to replace the old plate girder span over the Fort Wayne tracks, near Canal street. The work consisted of the rebuilding of the upper portions of the old abutments, and the placing of the new viaduct, which consists of three steel plate girders, each five feet six inches deep by sixty-seven feet long, spaced twenty-one feet centre to centre, leaving two roadways, each eighteen feet clear between wheel guards, and two sidewalks, each eight feet clear. The contractor for the work complete was the Chicago Bridge and Iron Company, and the total cost was \$7,644.30.

Fullerton Avenue Bridge.—This structure spans the North Branch of the Chicago River, and was built to replace the old combination draw at this point. The old bridge was closed to traffic and the work of demolition begun on Monday, May 13, 1895. The new structure was formally opened to traffic October 20, 1895. The work consists of a permanent concrete and masonry centre pier founded on solid rock, with the usual pile and timber protection; pile abutments and trestle bent approaches, the lower ends of which were brought down to grade with filling. (See diagram.) A pontoon bridge was made by City employes and maintained during the construction of the new bridge.

The FitzSimons & Connell Company were the contractors for the substructure.

The superstructure is of the ordinary Pratt truss construction, with two trusses spaced 22 feet centres, with one roadway 18 feet clear between wheel guards, and two sidewalks, each 5 feet clear—the length of bridge being 164 feet 6 inches on centre by 35 feet 4

inches wide over guards. The turn-table is rim-bearing and the gearing arranged with the idea of placing an electric motor on the structure, taking the current from the trolley line.

The Chicago Bridge & Iron Company were the contractors for the superstructure, and the total cost is \$26,752.67, of which the North Chicago Street Railway Company paid \$18,000.00.

We are making arrangements now to equip this bridge with electrical power, which will cost about \$1,500.00, and the west half of the protection, which is yet to be built, will cost \$1,700.00.

Diversey Avenue Bridge.—This structure spans the North Branch, and both substructure and superstructure are similar in all respects to Fullerton avenue bridge, except that the superstructure is 184 feet 2 inches on center line and the center pier is founded on piles. (See illustration.)

Lydon & Drews were the contractors for the substructure, while the Lassig Bridge & Iron Company constructed and erected the superstructure.

This structure furnishes the long-sought link between the West and North Side boulevard systems, as well as taking the traffic of a rapidly-growing territory.

This bridge, upon which the work was commenced July 10, will be opened for traffic early in January, 1896. The cost will be about \$32,000.00.

The City is in urgent need of new bridges and viaducts at the following points :

1. Kinzie street, North Branch.
2. North avenue, North Branch.
3. Division street, Ogden Canal.
4. Polk street, South Branch.
5. Western avenue, west fork of South Branch.
6. California avenue, west fork of South Branch.
7. Archer avenue, south fork of South Branch.
8. Chittenden avenue, Calumet River.
9. Kedzie avenue, I. & M. Canal (fixed span).
10. Canal and Sixteenth streets (viaduct).

Wells Street Viaduct.—Plans are complete for the new plate girder viaduct on Wells street, over the tracks of the Chicago & North-Western Railway, which will be built in connection with the rebuilding of the Wells street bridge by the Northwestern Elevated Railway Company, and is to be paid for by the Chicago & North-Western Railway Company and the Northwestern Elevated Railway Company.



Wells Street Bridge.—The work of remodeling Wells street bridge to carry the overhead work of the "L" road amounts to practically rebuilding the structure—for all of which work full calculations were made by the Department and all necessary figures and data furnished the "L" road engineers. Entire cost of same is to be borne by the Northwestern Elevated Railway Company.

North Halsted Street Bridge.—Full and complete plans and specifications for the substructure of the North Halsted street bascule bridge were prepared and the contract awarded. The date fixed for completion of substructure is May 1, 1896.

Plans and specifications for the superstructure will be completed and proposals asked for on or before the first of February. The bridge is to be completed August 1, 1896.

### BRIDGE AND VIADUCT MAINTENANCE.

MR. J. L. GARRETSON is Superintendent and MR. J. E. ROEMHELD is Engineer of Bridge and Viaduct Repairs.

There are at present under the direct supervision of this Department eighty-nine bridges over the rivers and canals, of which twenty-six are owned and maintained by various railroad companies, including a bascule lift bridge, owned and maintained by the Metropolitan Elevated Railway. Sixty-three are highway bridges, operated and maintained by the City, of which fifty are movable structures, seven are fixed spans over the Illinois and Michigan Canal and west fork of the South Branch, and six fixed spans are over the unnavigable part of the North Branch.

Among the above highway bridges are two folding or jackknife bridges, one lift or elevator bridge, one bascule or rolling lift bridge, and one combination railroad and highway bridge used by the Lake Street Elevated Railway, the remainder being common swing bridges. Three are operated by electric power, thirteen by steam and the remainder by hand power.

In addition to the above, the City maintains thirty-eight systems of highway viaducts over railway tracks.

Two new bridges have been added to the list this year, viz; Van Buren bascule and Fullerton avenue swing bridge.

In this synopsis, mention will only be made of those structures which have undergone extensive and permanent repairs.

Rush Street Bridge.—The old, worn out steam swinging machinery, which was a constant source of expense for repairs, was discarded and a twenty horse-power electric motor substituted, which has eliminated all the repair work necessary to put the many



THE NEW YORK  
PUBLIC LIBRARY  
ASTOR LENOX AND  
TILDEN FOUNDATIONS

THE NEW YORK  
PUBLIC LIBRARY  
ASTOR, LENOX AND  
TILDEN FOUNDATIONS.

parts of the steam plant in working order. This motor has been in service since August and has not involved any expense whatever in repairs to the swinging gear of the bridge. A new set of thirty-seven cast-steel turn-table rollers was put in, supplanting the badly worn cast-iron set of seventy-four. This work was done with a delay of only ten hours to traffic. Both approaches were rebuilt.

State Street Bridge.—At State street, a new and altered floor system was put in the viaduct and approaches, so as to make the structure safe to carry electric motor cars. It might be mentioned that the general introduction of motor cars during the past year has necessitated the reconstruction of most of the floors of bridges and viaducts crossed by them, and in several instances new structures will have to be built.

Clark Street Bridge.—This bridge has been partly repaved, and the parapet of the south pier, which became loose and fell, was rebuilt. Both sidewalks were replanked throughout with 2-inch maple.

Wells Street Bridge.—This structure was also replanked with new maple sidewalks.

Lake Street Bridge.—On this bridge the wiring of the electric motors, which was not properly installed in the first place, gradually gave out and became grounded in several places, which culminated in the burning out of one of the brush holders, field and commutators, thus disabling the bridge. This bridge was operated with two motors (one for each pinion) which were controlled by an old form of railway rheostat, which was also in bad condition. The armatures of both motors were also grounded. All this has just been completely overhauled and a controller of the "series parallel type" installed, and all wiring enclosed in armored conduits, which lead to the under side of motor houses, thereby making short circuit by water practicably impossible. This bridge is now in perfect swinging condition, the tracks, racks and turn-table having also been carefully readjusted.

Randolph Street Bridge.—The east approach of this bridge, which was gradually encroaching and binding the bridge, was readjusted and braced throughout.

Adams Street Bridge.—Adams street bridge received a new set of forty cast-steel turn-table rollers in place of the pre-existing eighty cast-iron rollers.

Jackson Street Bridge.—Jackson street bridge also received a new set of rollers, as above.

Van Buren Street Bridge.—This bascule bridge has been the source of trouble from the day it was opened to traffic, February 4, 1895. This new type of bridge contains numerous vital faults, which have occasioned frequent repairs. In May, the mechanical and electrical operating system went to pieces and disabled the structure, which was closed to traffic for a period of four weeks, during which time the electrical and mechanical systems were overhauled and the excess of counterweight in the bridge, which was the main cause of this failure, was removed. The structure was operated during the busy summer season without mishap, although it was evident that the electric motors were not of sufficient capacity nor in proper condition to do the work. In October these motors had to be taken out, two armatures were reinsulated, and the other two armatures were so badly burned that they had to be rewound. This work was done by the Bridge Department, and was accomplished at a cost of about \$100.00. Similar electric repairs at the time of the general breakdown in May, which had been done by the electric firm that had originally installed the plant, cost about \$950.00.

Canal Street Bridge.—This bridge was badly damaged by a collision with a canal boat, in which the south half of the structure was moved three feet out of line and the operating mechanism disabled. This was repaired by the Department and traffic was delayed but a few days.

South Halsted Street Bridge.—South Halsted street bridge was disabled for a few days, due to sleet forming in one of the tower sheaves, which forced the lifting cable from its position. This was reset at nominal expense.

Archer Avenue Bridge.—This structure is one of the bridges that had to be reinforced to sustain the weight of motor cars. This work was done by this Department and paid for by street car company.

Ashland Avenue Bridge.—The Ashland avenue and Thirty-ninth street bridge was changed in its floor system by the street car company so as to carry motor cars.

Deering Street Bridge.—A new floor was put in this bridge.

Kinzie Street Bridge.—Kinzie street bridge was knocked off its center by collision with a steamer. This was readjusted with only forty-eight hours delay to traffic.

Indiana and Erie Street Bridges.—The Indiana and Erie street bridges have been reinforced in floor systems for electric car service.

North Halsted Canal Bridge.—The North Halsted (canal) bridge has been reconstructed in its floor system by the street car company, as have also both Division street and North avenue bridges, for electric car service.



Weed Street Bridge.—The Weed street bridge (jackknife) has been overhauled in its cables.

Clybourn Place Bridge.—This bridge was changed in its floor system for electric cars.

North Kedzie Avenue Bridge.—Filled approaches were built to the North Kedzie avenue bridge, opening that thoroughfare to the public.

State Street Viaduct.—The State street viaduct was reconstructed throughout in its floor system in order to safely carry electric cars.

Van Buren Street Viaduct.—This viaduct was so badly damaged by locomotive fumes that it had to be taken down and a new structure built.

Twelfth Street Bridge.—The paving and sub-planking of the Fifth avenue approach to Twelfth street bridge was so rotted that vehicles would frequently break through. The woodwork of this bridge was completely renovated.

Ogden Avenue Viaduct.—The sidewalks of Ogden avenue viaduct were badly rotted and had to be renewed.

West Twelfth Street Viaduct.—Extensive pavement repairs were made to West Twelfth street viaduct.

The following structures were painted in the trusses :

Madison street bridge,	State street bridge,
Washington street bridge,	Twenty-second street bridge,
Randolph street bridge,	Thirty-fifth street bridge,
Lake street bridge,	Deering street bridge,
Wells street bridge,	Archer avenue bridge,
Clark street bridge,	State street viaduct.
Dearborn street bridge,	

This Department has also been called upon to do various pieces of work at pumping stations, cribs, etc.

The expense incurred in the maintenance of all the bridges and viaducts for the year 1895, including labor, material, supplies, etc., has been \$148,936.28, which is very small, considering the magnitude of this branch of the Department.

## HARBORS OF THE CITY OF CHICAGO,

CONSISTING OF THE CHICAGO RIVER AND BRANCHES AND THE  
CALUMET RIVER AND BRANCHES.

MR. RICARD O'S. BURKE, Assistant Engineer, in charge.  
CAPTAIN JOHN F. MOORE, Harbor Master.  
MR. JOHN C. WECKLER, Vessel Dispatcher.

During the year the quantity of material removed from the Chicago River and its branches amounted to 117,414 cubic yards, costing \$17,138.40 in all, or an average of 14.6 cents per cubic yard.

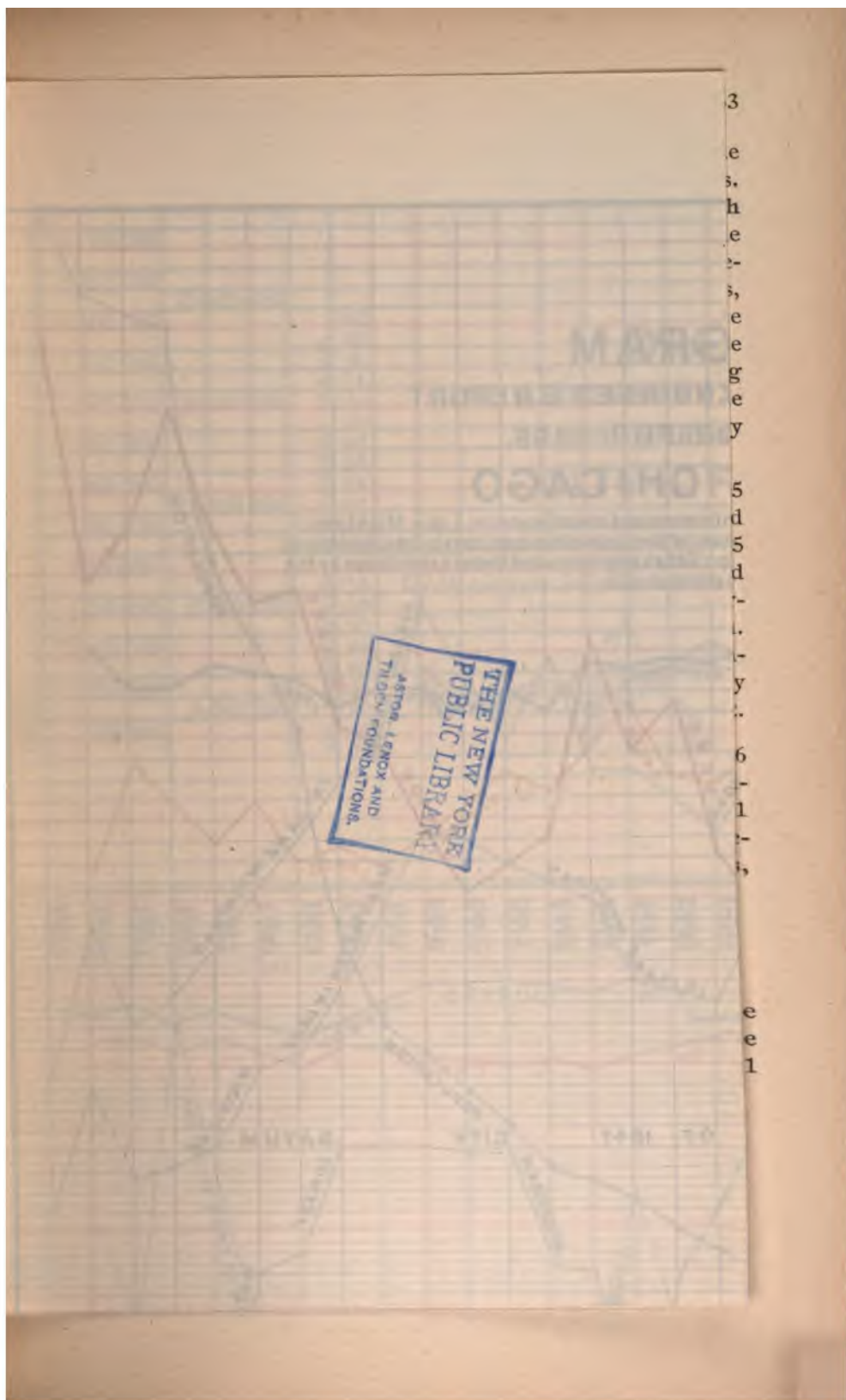
Dredging by parties other than the City and the Sanitary District of Chicago has been done under special permits to the following extent, viz. :

Chicago River and branches .....	219,800 cubic yards,
Calumet River and branches.....	168,000    "    "

being a total of 387,800 cubic yards of private dredging during the year. The dredging carried on under the orders of the United States Engineer, Major Marshall, Corps of Engineers, is not included in any of these quantities.

Removal of rock and hard-pan from the bottom of the west fork (or the Lawndale branch) of the South Branch has been carried on during the past year under a contract, dated September 1, 1893, with the Fitz Simons & Connell Company, by an order of the City Council, passed May 29, 1893. This improvement contemplates making a channel 60 feet wide and about 1,900 feet long, through the rock ledge west from Western avenue, cutting to a depth of 17 feet below City datum, so as to allow any vessels that could pass the tunnels to have a free waterway in this rock cut. The total rock removed to date is 9,306.38 cubic yards, which, with clay and hard-pan, makes the total cost of this work to date \$44,526.89. Of this, 3,369 cubic yards, at a cost of \$13,139.10, has been done during 1895. There remains yet to be blasted and dredged, 24,000 cubic yards of rock to make this waterway available, for which an appropriation of \$94,500 would be necessary. On the West Side, especially, there is a material encroachment on harbor area, which, as in hundreds of other cases, is the result of years of gradual movement of the dock line toward the centre of the river. In the early years of the City's life, few, if any, checks were kept to secure the integrity of the harbor area, and abutting property-owners have steadily moved their dock lines out into the legal waterway, until the condition is reached that there are few property-owners who are not guilty of this wrong upon the public. With the passage of the harbor ordinance of 1890 some check was provided, for when a property-owner, whose dock line was materially out into the waterway area, wanted to renew his dock, under that ordinance he could not do so without a permit; and under this permit the renewal was to be done back on the original dock line. But in many cases it was difficult, if not impossible, to decide which was the dividing line between public and private title, because of the many ordinances for the establishment of harbor lines, which performed in part only the operation of taking private property for public purposes. That work seemed to terminate with the passage of the ordinance by





THE NEW YORK  
PUBLIC LIBRARY  
ASTOR, LENOX AND  
TILDEN FOUNDATIONS.

3

e

s.

h

e

r-

s,

e

e

g

e

y

5

d

5

d

r-

.

r-

y

.

6

-

1

-

4

,

e

e

1

5

o  
e

b  
y  
F  
o

(  
d  
t  
f  
c  
l  
(  
h  
c  
t  
a  
t  
v  
r  
r  
c  
c  
t  
t  
I  
v  
i  
r  
c  
i  
r





the City Council, the other parts of the operation of exercising the right of eminent domain having never been carried out in most cases. Of these the ordinance for improving the east fork of the South Branch in 1869, that for the North Branch in 1854, and that for the establishment of harbor lines from Belmont avenue to Lawrence avenue of March 8, 1895, are the chief, although no material difficulties, as yet, have arisen between the property-owners and the City in the last case. This last improvement from Belmont avenue to Lawrence avenue is based on careful surveys made in 1891 and 1892, resulting in a series of contour maps, showing elevations at intervals of one foot, and the points of intersection of all United States and property lines traversed.

Dock construction and frontage permits were issued during 1895 for the construction, renewal or repair of docks on the Chicago and Calumet Rivers and their branches. Nine of these were for 1,895 lineal feet of dock, one railroad bridge and bridge protections and abutments in the Calumet River. Many of these required careful surveys before lines for the construction under the permit could be given. This is particularly true of the original town and immediate neighborhood, where the great value of real property renders it constantly necessary to guard the public waterway from further encroachment.

The constructed dock frontage of the Chicago River is 214,296 feet, or 40.6 miles. Calumet division, 55,065 feet, or 10.4 miles, Calumet River. Total, harbors, City of Chicago, 269,361 feet, or 51 miles. The length for the Calumet River has been verified by a statement furnished by the office of Major Marshall, Corps of Engineers, U. S. A., in general charge of Lake Michigan harbors.

#### COMMERCE BY THE LAKE.

Those whose interests are connected directly with the commerce of the City may well study the imperative lessons presented by the following table, showing the trade conditions for each year from 1871 to 1895, inclusive, and the following details for 1895:

Chicago River entered	7,637 vessels.	.....	4,602,508 tons.
Calumet River entered	1,404 "	.....	1,682,003 "
Total entered,	9,041 "	.....	6,284,511 "
Chicago River cleared	7,687 "	.....	4,585,831 "
Calumet River cleared	1,504 "	.....	1,760,838 "
Total cleared,	9,191 "	.....	6,346,669 "
Total commerce, City of Chicago, 18,232 vessels and 12,631,180 tons.			

The magnitude of the commerce by lake of the City may be realized from the following results of last year's trade, noting the gratifying fact that the entrances and clearances for the harbors of Chicago are equal to the entrances and clearances of Baltimore, Boston, Philadelphia, New Orleans and San Francisco combined, and surpasses New York City by 4,722 entrances and clearances.

COMMERCE BY LAKE AND CANAL—CITY OF CHICAGO, FROM  
1871 TO 1895, BY YEARS—WITH POPULATION.

Year.	VESSELS BY LAKE.			BY ILL. & MICH. CANAL.			POPULATION.
	Total No.	Total Tonnage.	Average Cargo, Ton.	Boats. No.	Tonnage.	Tolls. Dollars.	
1871	24,632	6,178,336	251	186	629,975	\$ 159,050	334,270
1872	25,353	6,077,542	239	173	783,641	165,874	367,396
1873	23,734	6,564,542	239	172	849,533	166,641	380,000
1874	21,547	6,329,711	294	152	712,020	144,831	395,400
1875	21,095	6,279,055	298	142	676,025	107,081	407,000
1876	19,245	6,167,736	320	145	691,943	113,293	420,000
1877	20,517	6,585,415	321	145	605,912	96,913	439,776
1878	20,984	7,239,673	345	140	598,792	84,330	450,000
1879	23,873	7,757,395	325	136	669,559	89,064	475,000
1880	25,520	9,154,351	345	133	751,360	92,296	503,298
1881	26,005	8,762,247	337	133	826,133	85,130	540,000
1882	26,977	9,754,949	362	132	1,011,287	85,947	560,693
1883	23,982	7,793,337	325	132	925,575	77,975	580,000
1884	22,826	7,508,696	330	134	956,721	77,102	630,000
1885	21,542	7,306,222	339	135	827,355	66,800	664,634
1886	22,372	7,877,080	352	130	808,012	62,516	704,000
1887	23,972	8,749,852	365	132	742,074	58,025	760,000
1888	22,095	8,890,658	402	127	751,055	56,028	830,000
1889	21,788	10,267,831	471	114	917,047	65,305	1,100,000
1890	20,133	10,116,051	502	104	742,392	55,111	1,200,000
1891	19,680	10,862,898	522	97	641,156	49,457	1,320,000
1892	21,123	11,780,393	565	95	783,288	54,987	1,450,000
1893	17,044	10,788,029	692	82	503,326	38,326	1,600,000
1894	16,202	10,284,178	635	81	587,266	44,547	1,640,000
1895	18,232	12,631,180	693	78	591,407	39,106	1,725,000



A Treasury report dated June 30th last, shows total arrivals and clearances, as follows:

Baltimore .....	3,992	
Boston .....	5,884	
New Orleans .....	2,364	
Philadelphia .....	3,831	
San Francisco.....	2,515	18,586
New York.....		13,853
Chicago .....		18,575

During navigation, in 1895, there were shipped from Chicago—

82,300,214 bushels of grain.
1,507,543 barrels of flour.
4,063,729 miscellaneous packages of general freight.

And during the same period Chicago received by water—

3,207,053 tons of coal.
1,276,527,000 feet of lumber, lath and shingles.
1,629,033 bushels of grain.
13,409,684 packages of freight.

From the records of the Despatcher's office, the following table has been compiled, showing the vessel movement inside the Chicago river:

MOVEMENT OF VESSELS AND OPERATION OF BRIDGES, FROM  
APRIL TO DECEMBER, 1895—DAY AND NIGHT—FROM  
RECORDS OF THE VESSEL DESPATCHER.

BRIDGES.	NUMBER.				AVERAGE.					PERCENTAGE OF TIME.	
	Days in Service.	Hours Open.	Vessels Passed.	Swings of Bridge.	No. of Vessels per Day.	No. of Swings per Day.	Time Open per Swing.	Time Open per Hour.	Time Open per Day.	Bridge Closed.	Bridge Open.
		<small>h. m.</small>					<small>m. s.</small>	<small>m. s.</small>	<small>m. s.</small>		
Rush street..	230	421.20	11,509	8,996	50.03	39.11	2.48	4.33	109.06	92.37	7.63
State street..	230	378.19	10,452	8,304	45.44	36.10	2.44	4.07	98.41	93.45	6.85
Dearborn st..	230	331.24	10,361	8,314	45.04	33.14	2.23	3.36	86.27	94.00	6.00
Wells street..	230	324.48	9,433	7,483	41.01	32.53	2.36	3.32	84.44	94.12	5.88
Lake street..	230	333.48	7,440	5,090	32.04	22.13	3.56	3.38	87.04	93.95	6.05
Jackson street	230	284.09	7,395	6,008	32.15	26.12	2.50	3.05	74.08	94.85	5.15
Harrison st..	230	350.19	6,429	5,813	27.90	25.27	3.36	3.48	91.23	93.65	6.35
12th street..	230	273.15	7,139	5,692	31.03	24.74	2.53	2.58	71.17	95.05	4.95
18th street..	230	285.40	6,216	5,178	27.02	22.51	3.18	3.06	74.31	94.82	5.18
22nd street..	230	331.00	6,291	5,078	27.35	22.07	3.54	3.36	86.21	94.00	6.00
Kinzie street..	230	264.12	4,357	3,576	18.94	15.54	4.26	2.52	68.55	95.21	4.79
Chicago ave..	230	224.23	3,206	3,007	13.93	13.07	4.28	2.26	58.32	95.94	4.06

By considering the facts of this table, we see that only 75.11 per cent. of our total trade by Chicago River goes west of Rush street bridge, leaving the balance, or 24.89 per cent. east of Rush street. 48.55 per cent. of our trade by Chicago River goes to the South Branch. Of this, over half, or 54.66 per cent., goes beyond Twenty-second street bridge; while of the vessels that pass Rush street bridge going west, 37.86 per cent. go up the North Branch, 26.42 per cent. of them stopping at docks between Kinzie street and Chicago avenue, and the remainder, or 73.58 per cent. of the total North Branch trade going up the North Branch and Ogden Canal, beyond Chicago avenue bridge.

The low water in Lake Michigan during the year has been a serious embarrassment to trade; the elevation of water, as observed at the Four-Mile crib, being above datum only on five days in the whole year. The deficiency of appropriation for dredging for harbor (being only \$15,000) rendered it impossible to provide any adequate relief for a condition so general. The movement of vessels in the Chicago River was accomplished with difficulty and expense during the entire year.

#### ELEVATION OF LAKE MICHIGAN.

	Maximum.	Minimum.	Mean.
January .....	-0.63	-1.04	-0.67
February .....	-0.40	-1.24	-0.87
March .....	-0.30	-1.00	-0.76
April .....	-0.00	-0.63	-0.28
May .....	-0.10	-0.67	-0.31
June.....	-0.21	-0.60	-0.41
July .....	-0.17	-0.57	-0.30
August .....	-0.12	-0.38	-0.21
September.....	-0.10	-0.42	-0.24
October.....	-0.10	-0.97	-0.48
November .....	-0.20	-1.57	-0.64
December.....	-0.13	-1.23	-0.74
Mean water during 1895.....	.....	.....	-0.49

The City is indebted to the courtesy of Major Marshall, Corps of Engineers, U. S. A., Prof. Willis L. Moore, Chief of the Weather Bureau, Martin J. Russell, U. S. Collector, for commercial, climatic and other data embraced in this report.

The appropriation of \$42,000.00 for 1895 for docks, dredging and rock excavation, was drawn on to the amount of \$20,400.00 for work done in 1894 and not paid for out of that year's appropriation. This left but about \$20,000.00 for the year of 1895, the actual work done being to the amount of \$30,277.50.



TABLE SHOWING MAXIMUM, MINIMUM AND MEAN WATER IN  
LAKE MICHIGAN, ANNUALLY, FROM 1854 TO 1895, BOTH  
INCLUSIVE.

Year.	Max.	Min.	Mean.	Year.	Max.	Min.	Mean.
1854.....	.....	.....	1.83	1875.....	3.01	-0.34	1.45
1855.....	3.45	0.15	1.56	1876.....	4.31	0.34	2.56
1856.....	3.56	0.42	1.60	1877.....	3.56	1.04	2.31
1857.....	4.35	0.60	2.42	1878.....	3.14	0.51	2.00
1858.....	4.69	1.33	2.00	1879.....	2.51	-0.49	1.06
1859.....	4.45	1.31	2.98	1880.....	2.81	-0.99	1.16
1860.....	3.53	1.30	2.54	1881.....	3.01	-2.19	1.26
1861.....	4.40	1.20	2.56	1882.....	3.01	-0.99	2.00
1862.....	3.30	0.70	2.50	1883.....	3.81	-0.99	2.10
1863.....	3.30	-0.80	2.10	1884.....	3.31	-0.01	2.24
1864.....	2.80	-0.40	1.57	1885.....	3.71	-0.01	2.48
1865.....	3.66	-1.08	1.30	1886.....	4.41	0.01	2.64
1866.....	2.50	0.00	1.07	1887.....	3.11	0.01	1.96
1867.....	2.60	-0.41	1.49	1888.....	3.01	0.01	1.30
1868.....	2.58	-1.00	1.01	1889.....	2.51	-0.79	0.77
1869.....	2.13	0.41	1.13	1890.....	2.21	-0.99	0.63
1870.....	3.25	-0.30	2.09	1891.....	1.61	-2.39	0.05
1871.....	2.80	-0.40	1.77	1892.....	1.30	-3.60	-0.17
1872.....	1.80	-0.74	0.81	1893.....	1.00	-1.30	-0.20
1873.....	2.73	-0.76	1.40	1894.....	1.80	-1.80	0.50
1874.....	2.80	-0.20	1.67	1895.....	0.63	-1.24	-0.49

PRECIPITATION AT CHICAGO, ILL., FOR EACH MONTH AND YEAR,  
FROM JANUARY, 1871, TO DECEMBER, 1895, INCLUSIVE.

YEAR.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
1871 .....	4.13	1.45	2.66	3.70	3.90	5.56	2.52	2.01	0.74	.....	3.62	3.44	.....
1872 .....	0.68	0.84	3.79	3.03	3.24	3.45	3.09	2.59	6.43	0.65	1.06	0.22	29.07
1873 .....	2.56	0.47	0.89	6.22	7.20	1.44	4.04	1.58	3.53	2.43	1.61	4.44	36.41
1874 .....	3.47	1.51	2.15	2.67	2.08	3.25	0.58	3.15	3.76	2.55	2.83	0.63	28.63
1875 .....	0.96	1.99	1.43	2.32	3.64	5.17	7.18	3.20	4.39	4.32	0.75	2.62	88.06
1876 .....	3.22	3.90	4.04	2.07	1.85	5.96	3.11	3.66	3.74	1.20	3.25	0.48	36.48
1877 .....	1.91	0.06	5.37	2.42	1.81	6.04	2.98	3.06	2.02	6.51	6.08	2.75	41.01
1878 .....	1.31	2.12	4.39	5.57	5.22	3.02	6.09	3.66	1.99	5.17	0.83	2.58	41.95
1879 .....	0.54	1.47	2.37	1.93	3.89	3.18	5.58	0.45	1.18	2.72	4.93	2.47	30.71
1880 .....	3.53	2.91	2.25	5.20	4.97	3.50	3.07	4.47	2.25	3.19	0.87	1.11	37.32
1881 .....	0.87	5.98	2.99	1.84	1.85	5.93	4.31	0.54	4.34	6.89	5.97	2.67	44.18
1882 .....	1.55	2.24	3.43	6.72	5.52	5.71	3.43	4.96	0.91	3.40	1.48	1.99	41.34
1883 .....	1.74	4.74	0.42	3.72	7.32	5.61	5.53	1.21	1.36	7.36	5.26	1.59	45.86
1884 .....	1.39	3.27	5.16	3.05	1.53	2.11	3.71	2.50	2.29	3.59	1.80	4.21	34.61
1885 .....	3.18	2.01	0.57	4.00	3.17	5.20	2.44	11.28	2.97	3.87	2.33	3.35	44.57
1886 .....	3.56	1.51	1.79	1.29	1.00	0.94	1.53	3.38	6.93	1.42	1.66	1.76	26.77
1887 .....	3.13	5.10	0.89	0.46	1.38	1.63	1.05	3.35	4.03	2.03	2.41	3.67	29.13
1888 .....	1.50	1.51	2.99	2.13	6.22	1.66	3.93	2.10	0.98	2.95	2.89	1.94	30.86
1889 .....	1.64	1.31	1.43	2.35	5.38	2.93	9.56	0.39	2.75	1.82	3.49	1.90	34.95
1890 .....	2.98	2.42	2.10	3.23	5.13	3.25	2.57	2.58	1.39	4.20	1.59	1.25	32.69
1891 .....	1.99	1.95	2.13	3.14	2.09	2.42	2.47	4.52	0.32	0.36	3.83	1.32	26.54
1892 .....	1.99	1.57	2.21	2.17	6.77	10.58	2.23	1.85	1.34	1.54	2.68	1.63	36.56
1893 .....	2.08	2.44	1.69	4.16	1.93	3.59	3.08	0.18	1.98	1.75	2.45	2.32	27.65
1894 .....	1.55	2.13	2.66	2.65	3.35	1.96	0.60	0.60	8.28	0.84	1.18	1.66	27.46
1895 .....	2.15	1.60	1.32	0.86	1.99	1.79	2.42	6.49	0.89	0.51	5.60	6.76	32.38
Sums .....	53.67	56.50	61.12	76.90	92.43	95.88	87.10	73.85	70.79	71.27	70.45	58.76	834.99
Means .....	2.15	2.26	2.44	3.08	3.70	3.83	3.48	2.95	2.83	2.97	2.82	2.35	34.79



## CHICAGO, ILLINOIS, DAILY PRECIPITATION, 1895.

DATE.	January.	February	March.	April.	May.	June.	July.	August.	September	October.	November	December
1 .....	.00	.00	Trace	.13	.00	.21	.00	.00	.00	.00	.00	0.27
2 .....	.00	.00	.00	.00	Trace	.00	.00	.00	.00	.00	.00	0.15
3 .....	.04	Trace	Trace	.00	.00	.00	.00	.00	.00	.00	.00	Trace
4 .....	.00	Trace	.10	.00	Trace	Trace	.00	.00	.12	.00	.00	0.05
5 .....	Trace	.00	Trace	Trace	.57	.00	.00	.14	.00	.00	.00	0.0
6 .....	.15	.91	.00	Trace	.41	.00	.00	Trace	.01	.36	.13	0.0
7 .....	.00	.43	.00	.27	.04	.00	.72	.00	.13	.02	1.68	Trace
8 .....	.03	.00	.04	.38	.14	.00	.14	.00	.00	.00	.13	0.03
9 .....	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.72	0.0
10 .....	Trace	.00	.00	.00	.01	.00	.00	.58	.00	Trace	Trace	0.0
11 .....	.05	.00	.00	.00	.39	.15	.00	Trace	.00	.12	.00	0.02
12 .....	.30	Trace	.01	.01	.00	.26	.00	.00	.00	.00	.00	0.01
13 .....	.08	Trace	.00	.00	.19	.01	.00	.00	Trace	.00	Trace	0.00
14 .....	.01	Trace	.01	Trace	.00	.00	.04	.00	.00	Trace	Trace	0.00
15 .....	.03	.00	.01	.00	.00	.00	.00	.00	.37	.01	Trace	0.00
16 .....	.00	.00	Trace	.00	.00	.00	Trace	.00	.21	.00	.09	Trace
17 .....	.00	.06	.00	.00	.02	.00	.33	.00	.00	.00	Trace	0.17
18 .....	.03	Trace	.00	.00	.05	.56	.00	.00	.00	.00	.00	1.10
19 .....	.00	.00	.00	.00	.17	.00	.80	.00	.00	.00	.91	2.68
20 .....	.10	.03	.00	.00	.00	.00	.00	.00	.00	Trace	.00	1.67
21 .....	.41	.00	.00	Trace	.00	.00	.08	.00	.00	.00	.15	0.05
22 .....	.01	Trace	.00	.00	.00	.00	Trace	.00	.00	.00	.04	0.00
23 .....	.00	Trace	.02	.00	.00	.00	Trace	1.18	.03	.00	.08	0.10
24 .....	.00	.00	.00	.00	.00	.00	.07	2.47	.00	.00	.00	0.34
25 .....	.44	.00	.00	.00	.00	.11	.00	.00	Trace	.00	.55	0.08
26 .....	.45	.00	.00	.02	Trace	.49	.05	.74	Trace	.00	1.02	0.00
27 .....	.00	.16	.00	.04	Trace	.00	.19	.02	.00	.00	.00	0.00
28 .....	.00	.01	.00	.00	.00	.00	.00	.98	.02	.00	.00	0.00
29 .....	Trace	.....	.00	.00	.00	.00	.00	.38	.00	.00	.10	0.00
30 .....	.00	...	.00	.00	.00	.00	.00	.00	.00	.00	.00	0.08
31 .....	.00	.....	.73	.....	.00	.....	.00	.00	.....	Trace	.....	Trace
Sums .....	2.15	1.60	1.32	0.86	1.99	1.79	2.42	6.49	0.89	0.51	5.60	6.76
Daily Means .....	.069	.057	.043	.029	.064	.060	.078	.209	.030	.016	.187	.218

MAXIMUM, MINIMUM AND MEAN DAILY TEMPERATURE,  
YEAR 1895.

DATE.	JANUARY.			FEBRUARY.			MARCH.			APRIL.			MAY.			JUNE.		
1895.	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.
1.....	25	12	18	3	-3	0	30	24	27	34	32	33	68	46	57	85	73	79
2.....	32	17	24	15	-9	3	38	19	28	36	32	34	81	54	68	92	72	82
3.....	29	21	25	12	3	8	36	19	28	41	29	35	87	59	73	95	66	80
4.....	16	-3	4	2	-13	-6	19	13	16	62	34	48	84	59	72	86	64	75
5.....	26	10	18	6	-15	-4	29	12	20	65	40	52	82	58	70	72	55	64
6.....	33	25	29	5	1	3	33	16	24	62	48	55	77	63	70	58	50	54
7.....	33	26	30	7	-5	1	45	29	37	51	42	46	71	57	64	79	54	66
8.....	20	7	14	0	-15	-8	34	24	29	38	36	37	80	57	68	75	61	68
9.....	23	13	20	12	-8	2	49	18	34	51	36	44	90	64	77	83	63	73
10.....	34	27	30	9	2	6	23	19	21	37	32	34	87	68	78	86	68	77
11.....	21	1	11	10	-6	2	30	20	25	60	33	46	57	43	50	88	70	79
12.....	27	-9	9	14	4	9	36	25	30	62	47	54	52	36	44	72	62	67
13.....	18	10	14	23	10	16	34	19	26	65	42	48	45	36	40	83	60	72
14.....	19	6	12	28	14	21	18	9	14	40	34	37	40	32	36	74	63	68
15.....	28	18	23	26	9	18	19	12	6	42	30	36	46	35	40	68	61	64
16.....	35	19	27	29	10	20	33	13	23	44	36	40	48	39	44	75	61	68
17.....	27	12	20	30	17	24	44	20	32	42	36	39	61	41	51	88	65	76
18.....	41	25	33	26	11	18	44	32	38	50	39	44	60	48	54	76	66	71
19.....	35	28	32	31	15	23	31	27	29	54	43	48	41	38	40	71	62	66
20.....	42	27	34	38	16	27	32	25	28	71	48	60	40	36	38	66	62	64
21.....	51	20	36	36	25	30	33	27	30	64	43	54	53	37	45	75	62	68
22.....	20	8	14	34	14	24	42	28	35	64	37	50	68	45	56	74	63	68
23.....	13	4	8	30	20	25	58	35	46	50	39	44	75	51	63	85	64	74
24.....	18	-2	8	47	26	36	66	37	52	81	41	61	71	57	64	78	65	72
25.....	23	16	20	46	36	41	50	36	43	67	47	57	73	59	66	93	66	80
26.....	28	5	16	49	32	40	46	32	39	47	42	44	52	45	48	78	63	70
27.....	-1	-9	-5	46	40	43	73	38	56	48	41	44	49	41	45	65	59	62
28.....	6	-9	-2	61	46	54	32	30	31	58	44	51	88	48	65	65	60	62
29.....	19	3	11	.....	.....	.....	80	31	56	64	48	56	93	70	82	68	61	64
30.....	6	-8	-1	.....	.....	.....	41	34	38	61	44	52	91	67	79	71	63	67
31.....	22	0	11	.....	.....	.....	35	31	33	.....	.....	.....	94	72	83	.....	.....	.....
Sums.....	768	320	543	675	277	476	1213	754	984	1601	1175	1383	2104	1561	1833	2324	1884	2100
Means.....	24.8	10.3	17.5	24.1	9.9	17.0	39.1	24.3	31.7	53.4	39.2	46.1	67.9	50.4	59.1	77.5	62.8	70.0



MAXIMUM, MINIMUM AND MEAN DAILY TEMPERATURE,  
YEAR 1895—CONTINUED.

DATE.	JULY.			AUGUST.			SEPT.			OCTOBER.			NOV.			DEC.		
1895.	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.
1.....	67	62	64	69	60	64	72	52	62	62	37	50	41	25	33	36	33	34
2.....	71	61	63	81	60	70	78	58	68	70	43	56	57	30	44	20	13	16
3.....	76	64	70	74	65	70	85	63	74	64	48	56	65	40	52	16	00	8
4.....	74	63	68	77	66	72	82	64	73	58	54	56	67	50	58	18	10	14
5.....	83	65	74	85	70	78	78	67	72	60	53	56	67	49	58	15	6	10
6.....	84	68	76	78	65	72	81	67	74	65	51	58	59	43	51	30	11	20
7.....	86	65	76	82	63	72	65	60	62	59	49	54	52	40	46	39	25	32
8.....	78	65	72	87	67	77	78	59	68	41	36	38	41	37	39	28	21	24
9.....	63	50	56	91	69	80	83	64	74	49	33	41	37	33	35	22	16	19
10.....	71	56	64	92	72	82	91	69	80	63	38	50	37	30	34	34	14	24
11.....	82	59	70	76	69	72	92	72	82	57	46	52	39	32	36	36	30	23
12.....	86	63	74	75	66	70	82	60	71	54	38	46	44	30	37	23	24	26
13.....	79	64	72	76	64	70	64	60	62	69	40	54	42	35	38	26	14	20
14.....	91	70	80	93	67	80	67	60	64	51	47	49	47	41	44	37	24	30
15.....	85	66	76	73	70	72	87	58	72	50	41	46	47	31	39	36	33	34
16.....	92	70	81	82	69	76	81	65	73	63	44	54	41	36	38	43	29	36
17.....	84	67	76	78	72	75	86	70	78	54	41	48	49	35	42	50	42	46
18.....	83	65	74	85	68	76	87	70	78	68	44	56	44	40	42	48	36	42
19.....	79	66	72	74	64	69	91	74	82	41	33	37	34	28	31	54	37	46
20.....	74	67	70	82	58	70	91	72	82	36	24	30	21	16	18	48	35	42
21.....	78	67	72	72	65	68	90	71	80	58	31	44	29	14	22	41	37	39
22.....	68	64	66	86	62	74	90	73	82	50	40	45	35	28	32	38	34	36
23.....	72	63	68	89	68	78	62	45	54	45	25	35	36	27	32	30	34	36
24.....	79	66	72	80	64	72	69	49	59	58	31	44	33	17	25	54	32	43
25.....	73	64	68	81	68	74	83	53	68	46	37	42	34	29	32	56	33	44
26.....	83	64	74	74	65	70	74	58	66	71	44	58	24	10	17	36	28	32
27.....	70	65	68	77	67	72	54	45	50	50	37	44	33	8	20	38	30	34
28.....	70	61	66	80	67	74	63	49	56	41	24	32	40	28	34	41	31	36
29.....	78	59	68	70	62	66	52	43	48	35	24	30	39	32	36	27	24	26
30.....	62	58	60	72	63	68	52	36	44	40	27	34	34	27	30	20	16	18
31.....	69	54	62	65	61	63	.....	.....	.....	42	34	38	.....	.....	.....	19	11	15
Sums .....	2390	1961	2175	2456	2036	2246	2310	1806	2058	1670	1194	1433	1268	921	1095	1073	763	915
Means .....	77.1	63.3	70.2	79.2	65.7	72.5	77.0	60.2	68.6	53.9	38.5	46.2	42.3	30.7	36.5	33.0	25.0	30.0

MEAN MONTHLY TEMPERATURE—CHICAGO, FROM  
1871 TO 1895, INCLUSIVE.

YEAR.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
1871.....	30.0	30.2	41.2	51.2	56.7	66.8	73.0	72.7	61.0	.....	35.0	20.0	.....
1872.....	23.0	25.5	27.6	48.7	56.3	69.3	71.7	72.1	64.0	50.2	31.9	19.1	45.6
1873.....	20.4	24.1	34.3	43.0	53.8	70.3	70.8	72.1	62.1	48.9	34.3	32.0	47.2
1874.....	28.9	31.4	36.5	38.6	59.3	70.5	74.8	71.8	66.4	53.0	40.3	33.5	50.4
1875.....	17.9	14.7	31.8	42.5	55.5	63.1	68.8	68.4	61.0	47.5	37.0	36.8	45.4
1876.....	33.0	31.8	33.9	46.5	59.0	67.5	73.5	73.5	61.1	48.8	39.3	20.0	49.0
1877.....	21.9	36.4	29.4	45.4	56.9	68.1	73.1	71.1	66.5	54.7	39.7	42.8	50.3
1878.....	31.2	35.7	44.3	52.2	55.5	65.4	74.8	73.6	65.9	52.0	43.1	23.7	51.4
1879.....	21.4	27.4	39.1	46.8	57.6	64.7	75.9	72.6	61.2	59.9	41.9	30.3	49.9
1880.....	40.1	34.6	37.9	48.5	64.2	69.9	72.4	72.4	63.5	50.8	31.4	23.0	50.6
1881.....	19.5	24.7	32.2	41.5	61.0	63.0	72.9	75.0	69.5	55.9	39.9	37.1	49.4
1882.....	28.3	38.2	38.3	45.9	51.7	63.6	68.6	71.2	65.0	56.5	41.7	26.0	49.6
1883.....	16.3	23.0	31.4	45.6	52.1	64.1	71.0	68.3	60.7	51.8	41.5	30.1	46.3
1884.....	19.2	27.7	34.2	44.3	56.7	65.0	69.2	68.8	68.9	56.4	39.6	28.4	48.2
1885.....	18.3	16.8	30.0	45.3	52.8	65.4	72.8	68.1	63.9	51.0	41.9	31.1	46.4
1886.....	21.4	28.1	36.1	49.1	57.0	66.0	71.4	72.4	66.1	56.6	38.2	25.0	49.0
1887.....	17.3	27.1	31.9	47.4	59.4	67.3	76.0	69.7	62.5	47.3	38.0	28.1	47.7
1888.....	15.1	23.0	30.5	45.4	52.6	67.4	72.6	69.4	59.8	49.1	41.6	32.2	46.6
1889.....	29.0	19.9	38.4	46.8	56.8	62.3	70.5	70.6	62.8	49.4	38.6	40.6	48.8
1890.....	30.8	32.4	29.5	45.6	53.4	70.2	72.1	67.6	60.4	51.4	41.9	30.6	48.8
1891.....	30.2	28.6	30.6	47.0	53.4	65.7	67.0	69.0	69.0	52.6	33.8	35.4	48.5
1892.....	19.5	30.2	31.0	44.0	52.4	64.4	71.6	70.9	63.9	53.6	34.7	23.4	46.6
1893.....	12.0	21.5	33.2	44.3	52.4	67.8	73.8	69.8	64.1	52.6	36.0	25.4	46.1
1894.....	27.5	23.0	41.2	46.8	56.1	71.4	73.4	70.8	66.2	52.1	34.4	32.4	49.6
1895.....	17.5	17.0	31.7	46.1	59.1	70.0	70.2	72.5	68.6	46.2	36.5	30.0	47.1



MONTHLY MEAN BAR. PRESSURE—ANNUAL MEANS FROM  
1873 TO 1895—FOR CHICAGO.

YEAR.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
1873.....	29.13	29.14	29.14	29.05	29.02	29.10	29.13	29.17	29.17	29.15	29.11	29.21	29.13
1874.....	.21	.22	.18	.19	.11	.09	.13	.13	.16	.21	.19	.22	.17
1875.....	.31	.19	.10	.10	.06	.10	.12	.10	.17	.10	.17	.03	.13
1876.....	.16	.15	.10	.09	.10	.02	.12	.16	.12	.06	.10	.18	.11
1877.....	.22	.27	.14	.07	.15	.04	.09	.09	.14	.11	.14	.19	.14
1878.....	.14	.05	.04	28.91	.06	.06	.11	.04	.18	.12	.15	.16	.08
1879.....	.22	.19	.18	29.13	.16	.13	.10	.11	.21	.25	.18	.19	.17
1880.....	.13	.16	.19	.06	.11	.10	.12	.16	.18	.18	.28	.21	.16
1881.....	.23	.21	.00	.13	.15	.07	.15	.15	.09	.20	.18	.21	.15
1882.....	.23	.13	.16	.15	.11	.02	.15	.12	.21	.14	.25	.20	.16
1883.....	.23	.35	.15	.07	.06	.06	.12	.20	.20	.22	.19	.19	.17
1884.....	.25	.13	.13	.07	.07	.16	.06	.17	.15	.24	.19	.20	.15
1885.....	.22	.10	.18	.13	.05	.15	.10	.11	.16	.11	.09	.15	.13
1886.....	.15	.17	.08	.17	.09	.12	.11	.11	.17	.30	.13	.27	.16
1887.....	.16	.23	.18	.07	.11	.11	.10	.14	.20	.17	.17	.16	.15
1888.....	.31	.14	.20	.25	.04	.05	.16	.16	.19	.09	.24	.17	.17
1889.....	.09	.21	.11	.13	.07	.10	.10	.20	.14	.25	.18	.15	.14
1890.....	.23	.16	.18	.21	.04	.11	.14	.19	.23	.06	.17	.20	.16
1891.....	.16	.11	.14	.12	.23	.07	.16	.12	.25	.22	.17	.14	.16
1892.....	.20	.20	.17	.15	.02	.06	.20	.15	.21	.18	.17	.20	.16
1893.....	.08	.19	.11	.01	.03	.10	.10	.15	.12	.13	.14	.18	.11
1894.....	.17	.20	.11	.12	.07	.13	.16	.17	.17	.06	.17	.19	.14
1895.....	29.10	.22	.14	.12	.13	.17	.14	.08	.14	.18	.21	30.00	29.25

## DIVISION OF ARCHITECTURE.

MR. R. BRUCE WATSON, ARCHITECT.

The following buildings have been designed and supervised by this division during the year :

## CITY TELEGRAPH DEPARTMENT.

## BLUE ISLAND AVENUE ELECTRIC LIGHT STATION.

June 1, 1895, the Blue Island avenue electric light station was completed. Dimension of building is 50 x 220 feet. The front exteriors are of pressed brick and terra cotta, faced inside with red pressed brick; tile roof on iron frame work. The entire cost of building was \$27,609.00.

## HEALTH DEPARTMENT.

CHICAGO ISOLATION HOSPITAL.—MR. D. E. WAID IS THE SUPERINTENDENT.

A municipal isolation hospital for contagious diseases, to be located on the block between Thirty-fourth and Thirty-fifth streets and Lawndale and Hamlin avenues, was planned, and the general contract was let under the preceding administration. Work was begun April 8, 1895. Shortly afterwards the Commissioner of Public Works being dissatisfied with the terms of the contract caused the work to be stopped pending a revision and investigation. Subsequently defective work was found on the foundations. The result of the inquiry led to the making of a new set of drawings on a radically different plan, which provides a normal capacity for about fifty patients, but arranged with heating and executive facilities for an epidemic, in which event, by adding some temporary wards, five hundred patients could be cared for upon short notice with small cost. This plan was approved by the Mayor and Board of Health.

An estimate was made showing that the hospital under the original plans would have cost, completed, \$216,000.00. It consisted of twenty-five buildings with capacity for only about one hundred and twenty beds, and covered a larger area of ground, and would have been expensive for heating and general administration. As now being constructed, the hospital will consist of eight fire-proof buildings, and completed (not including the cheap temporary wards, which may never be needed) is estimated to cost \$112,000.00.

The general contract, as originally let to William Fallon & Company, amounted to \$124,850.00. As revised, it was made to include additional items of work and was reduced to \$80,000.00, according to the new lay-out.



Work was begun in September, 1895.

The buildings are being roofed, and, with good weather, ought soon to be ready for plastering.

#### FIRE DEPARTMENT.

##### MARYLAND AVENUE FIRE ENGINE HOUSE.

Contracts were let for a two-story fire engine house located on Maryland avenue, near Sixty-third street, on September 25, 1895. Work was commenced first of October, and building will be completed and ready for occupancy the first of February, 1896. Contract price of building is \$6,447.00. The dimension of the building is 26 x 82 feet.

The first story front is of blue Bedford stone; second story of buff brick with copper bay. The hardwood interior to be finished in oil.

##### SOUTH SIDE PUBLIC BATH HOUSE.

On December 24 plans and specifications were completed for a public bath house, to be located on Wentworth avenue, near Thirty-ninth street. Dimension of the building is 49.5 x 100 feet; building to cost \$15,000.00.

The basement contains a barber shop, soup kitchen, free laundry, steam heating and hot water apparatus. The first story consists of thirty-two baths for females and thirty-two baths for males, separate waiting room and entrance for each sex, and general office.

The second floor is divided into apartments for the attendants in charge. The front is to be of pressed brick and terra cotta trimmings.

#### DEPARTMENT OF SEWERS.

Sketches have been made for a proposed pumping station to be located at Seventy-ninth and Sangamon streets. Dimension, 90 x 130 feet. The three main sides to be of pressed brick, and the entire interior of the pumping room to be laid up in pressed brick.

In conclusion, I thank you for the uniform courtesy you have shown and the support you have given me in all matters connected with this office; and I fully appreciate the hearty co-operation of the office force, and the efficient assistance of the heads of sub-departments.

Respectfully submitted,

LEWIS B. JACKSON,

*City Engineer.*



REPORT OF THE  
**Bureau of Water Rates**  
CITY OF CHICAGO





# WATER OFFICE REPORT

---

HON. W. D. KENT,

*Commissioner of Public Works.*

DEAR SIR: In submitting herewith for your approval the Annual Report of the Water Office for the year ending December 31, 1895, I desire to state that the figures and statements as shown are actually drawn and compiled from the books of the Department. In no instance are they swelled or exaggerated for purposes of favorable comparison. In the cases of certain branches of the Department showing a loss over former years, it is not due to the fact that the administration has been careless or inefficient but is rather caused by the fact that we have confined ourselves to the records as they actually appear, thereby enabling us to overcome in the future such weaknesses as business methods and faithful work will remedy.

## IMPROVEMENTS.

Feeling assured that needed reforms and improvements when suggested to you will, as in the past, meet with your prompt approval and co-operation in securing them, I deem it unnecessary to embody such recommendations in this report except by reference in a general way. That such improvements will be needed from time to time you are no doubt satisfied, as I am, it being my desire that the Department advance with the times and as far as possible outgrow the systems and conditions inaugurated when Chicago was a small town instead of a city of nearly two million inhabitants.

A general rearrangement of the office in order to provide more room from the present space occupied by the Bureau will be one of the first improvements suggested. This can be done at a comparatively small expense, and will facilitate and economize the work of the office to such an extent that in my opinion the City will be well repaid for the cost incurred.

## TIME-KEEPING.

The system of time-keeping established by your instructions May 1 is being rigidly enforced in this Bureau. Its successful operation is indicated by the fact that the standard of punctuality and attendance upon work is at present very satisfactory.

Records of each employee are kept in accordance with civil service ideas, in order to guide us in selecting candidates for promotion caused by vacancies, resignations, or otherwise.

## COLLECTIONS.

The total net receipts of this office from all sources for the year amounted to \$3,215,137.10. Properly creditable to this year's business is an addition of \$25,352.86; same having been paid out by draw-backs from this year's collections for vacancies occurring during 1894, as provided for in the ordinance of January 14, 1895, making a total of \$3,240,489.06. Deducting from this amount \$3,010,259.92, the net collection of 1894 shows an actual increase in the collections of 1895 of \$230,230.04. Considering the fact that during the first four months of 1895 the meter earnings ran behind the earnings of the same period for 1894, \$53,878.76, and that the assessed rates collections fell off \$79,864.71, this appears to me a very favorable showing.

The meter collections of 1895 were \$1,004,203.48, as against \$1,012,296.56 for 1894.

May 1 to December 31, 1895, the meter collections were \$700,506.71; for the same term in 1894 they were \$654,821.03, or an increase of \$45,685.68 during the period of my incumbency.

## EXPENSES.

The entire expense of operating this Bureau, including the Meter Mechanical and Permit Departments, amounted to \$309,273.30, or about 9½ per cent. of the total net collections.

## COMPARATIVE STATEMENT OF AMOUNT ASSESSED FOR WATER.

	1894.	1895.
General Assessment.....	\$2,227,687 77	\$2,392,640 90
Increase Checks.....	205,337 30	217,465 10
	<hr/>	<hr/>
	\$2,433,025 07	\$2,610,106 00
*Decrease Checks.....	111,650 41	134,479 39
	<hr/>	<hr/>
Net Assessed Rates.....	\$2,321,374 66	\$2,475,626 61
Meter Rates .....	1,012,346 71	1,058,411 88
	<hr/>	<hr/>
Total .....	\$3,333,721 37	\$3,534,038 49

Increase in 1895 over 1894, \$200,317.12.

\* Decreases for draw-backs, charitable, municipal and educational institutions, not included in these amounts.



The increase in the amount of the decrease checks of 1895 over those of 1894 is due to the large number of buildings removed or destroyed for elevated railway purposes ; also to the increase in the number of buildings controlled by meter measurement, causing the assessed rates on such property to be decreased.

#### UNCOLLECTED.

The amount due the City, and uncollected December 31, 1895, is \$439,860.62. Out of this \$54,208.40 is due for water used through meters, largely composed of the current monthly tax which will be collected during the coming month. The balance, \$385,652.22, is due for assessed rates, and with the exception of about \$100,000.00 will be collected by the first of May, by enforcing payment through the Shut-off Department. The \$100,000.00 which we do not expect to collect seems to be the average amount standing on the books from year to year. It is uncollectible during the ordinary period and by ordinary methods by reason of the fact that the property has become vacant and no water is wanted ; the water in the meantime having been shut off by the Department ; again, where premises are not being supplied with City water, there being no connections with the main and water procured by means of wells, though a frontage charge is made the same as if connected.

It must not be understood that this back tax remains on the same property from year to year. On the contrary it is daily being paid up when owners are compelled to do so after the property becomes occupied and before water is turned on by the City, or when wells run dry or become contaminated and owners or occupants are of necessity forced to resort to the mains for their supply. The places of those paid up are filled by others of like character, so that the uncollected of this description seems to remain about the same each year.

Special legislation to enforce payment on this class of delinquents might be desirable but I doubt the ability of the City Council to enact ordinances which would cover the difficulty. The remedy lies, as in all kinds of delinquents, in keeping the number down to a minimum by the watchfulness and persistency of the Department through the Shut-off force.

## EXEMPTIONS.

During the year the Department has decreased, owing to the ordinance covering same, \$36,932.70 for municipal and public buildings; \$26,456.76 for religious, charitable and educational purposes; total, \$63,389.46, as against \$53,929.91 in 1894. The advance is largely owing to the number of new schools built during the year as well as the increase in religious, charitable and educational institutions, but is partly accountable by the fact that a large amount of property entitled to exemption was not decreased until 1895, though the water taxes accrued in 1894. In addition to the above the City furnishes free water to the extent, I should estimate, of at least \$50,000; covering a number of buildings supplied by meter and not included in the foregoing, but which are also exempt under the ordinance, as well as the Cook County buildings and the West Side Parks.

## TOWN OF LAKE OFFICE.

On the 15th of May the branch office located at Nos. 4723 and 4725 Halsted street, through which the entire assessed water rates for the Town of Lake, comprising the Twenty-ninth, Thirtieth, Thirty-first wards, and that portion of the Thirty-fourth ward lying west of State street, was, by your instructions, discontinued, and the work of this district consolidated with that of the remainder of the City in the main office; thus abolishing the last of the sub-offices. The wisdom of this change was immediately demonstrated in securing for the Department a much better control of the vast amount of detail of this district and in a general revision of the old-fashioned systems in use; also in a reduction in the operating expenses naturally incidental to the maintenance of a branch office. We also discovered that this section had not been inspected for several years, an immediate re-assessment resulting in an increased revenue from these wards of over \$40,000.

## AMENDMENTS TO ORDINANCE.

In the latter part of June I presented to you an amendment to the ordinance governing the payment of water rates, providing for an extension of fifteen days on each of the semi-annual periods for payments in the North Division of the City, which, with your



approval, was passed by the City Council, July 11. The effect of this was to provide a separate period for the payment of water taxes in each division of the City instead of two as previously, and to a large extent to lessen the crowded and congested condition of the office during the last few days of the terms as well as relieving the force of a large share of the extra work and spreading it over a longer period. To such an extent has this amendment operated to the benefit of the Department and the tax payers that I shall recommend additional changes and reforms along the same lines during the coming season.

#### WEST PULLMAN.

Pursuant to an order you issued in October, a six-inch meter supplying the town of West Pullman, which had previously been annexed to the City, was removed. The seven meters controlling the supply of water for the factories in that district were taken charge of by the Department and the remainder of the property was assessed by the ordinary frontage rates, resulting in an increase of over \$1,000 per annum over the rates formerly paid through the single meter.

#### UNITED STATES AND PACIFIC EXPRESS CO.

Under the supervision of the United States and Pacific Express Company, to whom is delegated the exclusive right to collect water taxes outside of this office, there was collected and turned in through their 175 branch offices \$354,360.09. These offices are scattered all over the City, two or more in each ward, and are the means of enabling the tax payers, on the addition of five cents, or one car-fare, to make their payments within a convenient distance of their homes and without the loss of time necessary to a long journey to the heart of the City.

#### ACCOUNTING DEPARTMENT.

In the fall of 1893 a system of double entry book-keeping was inaugurated in this Department, and the wisdom of such action has been clearly demonstrated during the past year. The system has been enlarged and extended so that now the accounts of all the sub-departments are kept with as much detail and precision as was that of the "assessed rates" heretofore.

Under the direction of the present capable chief accountant of this Bureau the former antiquated systems of accounting in vogue have been superseded by a complete and thorough system of "up-to-date" book-keeping, so that the work of this Department is more in the nature of an "auditing department" than a book-keeping one, and it is my purpose to continue to improve the system until there can absolutely be no opportunity for any leakage whatsoever.

#### NEW AND REPAIRED METERS.

At the end of December, 1894, there were in service 4,824 meters. During 1895 the total number of meters set in new locations was 345. The number removed permanently and property assessed, 49. The number set replacing others, 84. Total number set in 1895, 429. Total number in use December 31, 1894, 4,824. Total number in use December 31, 1895, 5,120. Net increase, 296.

The number of hydraulic elevator indicators in use December 31, 1895, was 278. Number of meters repaired for which bills were rendered, 1,248.

I see no particular reason why this branch of the Bureau should show a large profit at the expense of the water tax payers, as the extension of the meter service naturally increases the revenue of the City, and while the report of this branch shows a loss for the year 1895 of \$2,787.90, in reality it has been more than self-sustaining. In proof of which I will simply say that material was purchased to the amount of \$4,483.32, the labor for which was performed and credited to 1894 while the bills were held over to be paid and charged in 1895. There was also \$1,000.00 deposited for labor to be performed in 1895, while the amount was credited to 1894.

#### METER CONTROL.

I am strongly in favor of increasing and extending by all practical and legitimate means the meter control of the water supply of the City, and while I consider the work of the mechanical branch satisfactory, it appears to me ridiculous that the City of Chicago has in service only 5,120 meters when towns like Milwaukee, Providence, and others of like description are using twice as many, especially when our per capita of consumption per day, about 140 gallons, stands among the highest. I shall, therefore, recommend measures to enforce the purchase of meters by all large consumers of



water. I believe the City should have in use at least 50,000 meters, which would not only increase the revenue materially but compel economy in the use of water to such a degree that, together with the improvements in tunnels and mains now under process of construction, and a rigid enforcement of the present rules governing the waste of water by those assessed under frontage rates, it would furnish all the water necessary for all the people of the City.

#### QUALITY OF METERS.

In my judgment a matter of the utmost importance to the Department is the grade of meters used. A great deal of attention has been given to this subject. Tests and examinations were made of the different makes offered, independent of former records, and as a result I feel safe in saying that only those are used which, while they are fair to the consumer, are giving the most accurate and reliable service to the City.

#### SERVICE PIPES.

During the year 1895 there were 5,357 service pipes laid at an average cost, per pipe, of \$11.73, or a saving to the property owners of \$6.05 per pipe as compared to cost of those laid in 1894, making a total saving to the people of \$32,409.31.

#### PLUMBERS' LICENSES.

The Permit Department issued, during 1895, 728 plumbers' licenses at a profit to the City of \$18,200.00, as against 619 in 1894, for which \$15,475.00 was paid, showing an increase over 1894 of \$2,725.00.

#### INSPECTION DEPARTMENT.

In addition to a thorough re-inspection of the Town of Lake wards, covering the Twenty-ninth, Thirtieth, Thirty-first, and a portion of the Thirty-fourth wards, this branch of the Bureau increased the assessment on hose alone \$45,000.00 by a special inspection of the entire City during the summer months.

A total of 9,749 special examinations were also made.

## SHUT-OFF DEPARTMENT.

In conjunction with its ordinary work, as detailed in the report, to this sub-department has been intrusted the inspection of sprinkling carts, tugs, etc., and as a result the revenue from this source has been increased \$6,600.00 over last year.

## INSPECTION DEPARTMENT.

The following is the report of the work done by Water Inspectors for the year 1895:

All buildings in the Twenty-ninth, Thirtieth and Thirty-first wards and that part of the Thirty-fourth ward west of State street were thoroughly re-inspected.

During the summer months, when water was scarce, an Inspector was detailed in each ward and one in each of the public parks, excepting Lincoln Park, to look after hose and prevent any unnecessary waste of water.

Five hundred and forty-seven (547) surveys were made for pipe petitions and pipe deposits.



## BUILDINGS EXAMINED.

1896.	One-Story.	Two-Story.	Three-Story.	Four-Story.	Five-Story.	Six-Story.	Special Examinations.	Total per Month.
January .....	23	69	48	7	3	1	951	1,096
February .....	89	85	71	11	7	....	710	923
March .....	43	78	64	4	2	1	128	310
April .....	21	52	30	6	1	.....	121	231
May .....	17	40	23	8	3	1	1,413	1,505
June .....	218	341	142	12	1	.....	1,331	2,045
July .....	1,691	2,816	257	54	4	2	1,010	5,834
August .....	1,642	2,695	251	40	3	.....	689	5,320
September .....	1,893	3,206	456	21	6	.....	577	6,159
October .....	1,815	3,148	540	14	2	.....	487	6,004
November .....	1,143	2,481	292	20	2	1	1,246	5135,
December .....	1,019	2,141	190	22	1	.....	1,091	4,464
TOTAL .....	9,563	17,145	2,359	219	35	6	9,749	39,076

## LEAK, WASTE AND SHUT-OFF DEPARTMENTS.

The following table shows the work done by the leak, waste and shut-off force :

1895.	Bills and Shut-off notices Delivered.	Shut-off for unpaid taxes.	Shut-off for leaks and waste.	Water turned on.	Complaints Investigated.	Notices of leaks and waste.
January.....		88	10	18	40	25
February.....		36	9	18	61	38
March.....		28	12	10	25	24
April.....	20,250	25	8	14	16	42
May.....		80	16	43	58	68
June.....		281	21	162	208	320
July.....		340	22	180	212	297
August.....		458	12	208	179	812
September.....		305	14	120	126	186
October.....	38,750	281	10	160	92	98
November.....		206	18	123	131	82
December.....		298	15	178	85	103
TOTAL.....	* 59,000	2,826	167	1,224	1,228	1,595

\* These bills were delivered in districts where there is no free delivery, and where the address (street number) is not known.

## PERMIT DEPARTMENT.

## SCREW FERRULES INSERTED DURING YEAR 1895.

MONTHS.	$\frac{1}{4}$ -inch Ferrules Inserted.	$\frac{3}{4}$ -inch Ferrules Inserted.	1-inch Ferrules Inserted.	Grand Total of Screw Ferrules Inserted.
January... ..	45	50	8	98
February.....	46	66	6	118
March.....	153	156	10	319
April.....	305	501	20	827
May.....	328	383	21	732
June.....	298	435	9	742
July.....	253	612	19	884
August.....	254	471	18	738
September....	242	364	14	620
October.....	267	459	11	737
November.....	278	321	11	610
December.....	225	251	2	478
TOTAL.....	2,694	4,069	189	6,903



Forty-ninth.....	Wallace.....	Halsted.....	19	28 40	66 50	129 68
Fifty-first.....	Wood.....	Lincoln.....	22	33 00	77 00	121 44
Fifty-eighth.....	Wentworth avenue.....	Stewart avenue.....	12	18 00	42 00	78 12
Forty-third.....	Goodspeed.....	Western avenue.....	115	172 80	402 50	746 05
Forty-eighth.....	Wallace.....	U. S. Y. & T. R. R.....	18	27 00	63 00	107 68
Fifty-third.....	Lake Michigan.....	Cottage Grove avenue.....	21	31 50	73 50	166 08
Fillmore.....	Douglas boulevard.....	W. Fortieth.....	78	117 14	273 00	493 60
Fairfield avenue.....	W. Sixteenth.....	W. Twenty-second.....	96	144 00	336 00	614 40
Francis.....	Charlton.....	Southern avenue.....	23	34 68	80 50	130 46
Flournoy.....	Kedzie avenue.....	Central Park avenue.....	104	157 02	364 00	782 10
Flournoy.....	Albany avenue.....	Leavitt.....	29	43 51	101 50	176 89
Fifty-first.....	Chicago avenue.....	Augusta.....	26	31 20	91 00	150 86
Fairfield avenue.....	California avenue.....	Washenaw avenue.....	26	43 49	101 50	169 37
Flournoy.....	Union avenue.....	Stewart avenue.....	27	39 00	91 00	168 74
*Forty-sixth.....	Cottage Grove avenue.....	St. Lawrence avenue.....	27	40 43	94 50	185 56
*Fiftieth.....	Sixty-seventh.....	Sixty-ninth.....	163	244 34	570 50	987 74
Green.....	Balmoral avenue.....	Roscoe.....	141	212 79	493 50	743 19
Herndon.....	Central Park boulevard.....	Washington boulevard.....	63	94 79	220 50	394 09
Homan avenue.....	Western avenue.....	California avenue.....	11	16 50	38 50	91 74
Humboldt avenue.....	Ogden avenue.....	Twenty-sixth.....	34	50 94	119 00	218 68
Hamlin avenue.....	Ogden avenue.....	Thirty-first.....	16	24 15	56 00	125 77
Hamlin avenue.....	Douglas Park boulevard.....	W. Sixteenth.....	137	205 61	479 50	971 07
Hinman.....	Western avenue.....	Pan-Handle R. R.....	145	216 99	507 50	806 71
Irving avenue.....	Everett.....	Center.....	78	116 94	273 00	456 36
James.....	Laurel avenue.....	Chicago river.....	26	38 84	91 00	143 90
Kedzie avenue.....	Milwaukee avenue.....	U. S. Y. and T. R. R.....	35	52 58	123 50	392 97
Langley avenue.....	Thirty-third.....	Lake Michigan.....	43	64 66	150 50	269 02
Lawndale avenue.....	Wallace.....	Robey.....	19	28 50	66 50	138 32
Logan avenue.....	Sheffield avenue.....	Lincoln avenue.....	61	91 50	213 50	365 98
Lawrence avenue.....	Western avenue.....	Logan.....	37	55 50	129 50	242 62
Melrose.....	Montrose boulevard.....	Sixty-third.....	36	54 27	126 00	222 21
Montrose boulevard.....	Mead.....	Sixty-ninth.....	25	37 60	87 50	249 40
Mead.....	May.....	Wood.....	13	18 00	42 00	65 64
May.....	*Moore.....	Douglas Park boulevard.....	28	42 00	98 00	221 20
*Moore.....	Thirty-third.....	Wood.....				
Thirty-fifth court.....	Thirty-fifth court.....	Boulevard.....				
North Fifty-ninth.....	North Fifty-ninth.....	Robey.....				

## DRIVEN FERRULES INSERTED DURING YEAR 1895.

MONTHS.	$\frac{3}{4}$ -inch Ferrules Inserted.	$\frac{1}{2}$ -inch Ferrules Inserted.	1-inch Ferrules Inserted.	Grand Total of Driven Ferrules Inserted.
January.....	19	441	...	460
February.....	8	.....	.....	8
March.....	15	52	.....	67
April.....	8	580	.....	588
May.....	8	1,066	4	1,078
June.....	2	750	.....	752
July.....	5	696	.....	701
August.....	.....	834	.....	834
September.....	.....	660	.....	660
October.....	.....	895	.....	895
November.....	.....	781	.....	781
December.....	.....	954	.....	758
TOTAL.....	50	7,709	4	7,763

## SUMMARY OF FERRULES INSERTED.

	$\frac{1}{2}$ -inch.	$\frac{3}{4}$ -inch.	1-inch.	Grand Total.
Screw ferrules .....	2,694	4,069	139	6,902
Driven ferrules.....	50	7,709	4	7,763
GRAND TOTAL.....	2,744	11,778	143	14,665

The number of applications made at this office for ferrules to water service pipes during the past year (exclusive of City contracts and retaps) were as follows :

Inserted in old part of City.....	2,829
Inserted in Lake View.....	1,551
Inserted in Hyde Park.....	1,541
Inserted in Town of Lake.....	869
Inserted in Calumet.....	404
Inserted in Cicero.....	324
Inserted in Jefferson.....	773

GRAND TOTAL..... 8,291

## PERMITS.

Permits were issued during the year 1895 as follows :

For tapping water mains for pipes to inside of curb for future use.....	8,088
For tapping water mains for enlarged service pipes to houses previously supplied.....	663
For tapping water mains for service pipes to houses not previously supplied.....	4,723
For connections to service pipes inside of curb lines.....	575
For 8-inch cast-iron pipes to be used as service pipes.....	2
For 6-inch cast-iron pipes to be used as service pipes.....	12
For 4-inch cast-iron pipes to be used as service pipes.....	44
For 3-inch cast-iron pipes to be used as service pipes.....	5
For 2-inch cast-iron pipes to be used as service pipes.....	114
For miscellaneous or special permits.....	436

GRAND TOTAL..... 14,662



WATER SERVICE PIPES LET AND PUT IN BY CONTRACT DURING YEAR ENDING DECEMBER 31, 1895,  
SHOWING THE NUMBER OF PIPES AND THE TOTAL AMOUNT OF CONTRACT  
AND AMOUNT FOR TAPS AND ASSESSOR'S COST.

STREET.	FROM	TO	Number of Pipes.	Assessor's Cost.	Taps.	Amount of Contract.
Ashland avenue.....	Fifty-ninth.....	Sixty-third.....	103	\$ 244 86	\$ 570 50	\$ 1,706 25
Attica.....	Laurel.....	Auburn.....	15	23 54	52 50	90 71
Arch.....	Lyman.....	Archer avenue.....	7	10 53	24 50	73 54
Adams avenue.....	Seventy-third.....	Seventy-fifth.....	58	87 43	203 00	346 99
*Ada.....	Fifty-ninth.....	Sixty-third.....	198	287 83	693 00	1,252 51
Bishop.....	Forty-ninth.....	Sixty-third.....	24	36 19	84 00	133 65
Balmoral.....	E. Ravenswood Park.....	Ashland avenue.....	10	15 05	35 00	104 65
Bradley place.....	Rokeby.....	Halsted.....	31	46 50	108 50	181 65
Champlain avenue.....	Archer avenue.....	Thirty-seventh.....	25	37 49	87 50	139 28
Champlain avenue.....	Sixtieth.....	Sixty-first.....	5	7 50	17 50	41 30
Carroll avenue.....	Kedzie avenue.....	Homan avenue.....	11	16 53	38 50	89 51
Carroll avenue.....	Francisco.....	Sacramento avenue.....	19	28 48	66 50	175 01
Carlisle place.....	Kedzie avenue.....	Albany avenue.....	157	236 28	549 50	1,033 87
Congress.....	W. Fortieth.....	W. Forty-sixth.....	10	15 00	35 00	126 00
Colorado avenue.....	Douglas Park boulevard.....	Crawford avenue.....	40	60 00	140 00	259 60
Center.....	Clark.....	Southport avenue.....	21	31 66	73 50	64 10
Dickens avenue.....	California avenue.....	Humboldt boulevard.....	52	78 00	182 00	636 24
Diversey avenue.....	Milwaukee avenue.....	Kedzie avenue.....	45	67 75	157 50	248 15
Ellis avenue.....	Seventy-first.....	S. Chicago avenue.....	51	70 66	178 50	390 50
Escanaba avenue.....	Eighty-seventh.....	Ninety-first.....	56	84 32	196 00	280 80
Elston avenue.....	Belmont avenue.....	Kedzie avenue.....	140	211 36	490 00	751 84
Evans avenue.....	Sixty-third.....	Sixty-ninth.....	8	.....	28 00	111 20
Elias.....	Archer avenue.....	Lyman.....	121	181 52	433 50	1,161 58
Evanston avenue.....	Montrose boulevard.....	N. Fifty-ninth.....	21	31 64	73 50	181 93
Evergreen avenue.....	Rockwell.....	California avenue.....	.....	.....	.....	.....
*Ewing avenue.....	Ninety-second.....	100th.....	.....	.....	.....	.....



Forty-ninth.....	Wallace.....	Halsted.....	19	28 40	66 50	129 68
Fifty-first.....	Wood.....	Lincoln.....	22	33 00	77 00	121 44
Fifty-eighth.....	Wentworth avenue.....	Stewart avenue.....	12	18 00	42 00	78 12
Forty-third.....	Goodspeed.....	Western avenue.....	115	172 80	402 50	746 05
Forty-eighth.....	Wallace.....	U. S. Y. & T. R. R.....	18	27 00	63 00	107 68
Fifty-third.....	Lake Michigan.....	Cottage Grove avenue.....	21	31 50	78 50	166 08
Fillmore.....	Douglas boulevard.....	W. Fortieth.....	78	117 14	273 00	493 60
Fairfield avenue.....	W. Sixteenth.....	W. Twenty-second.....	96	144 00	338 00	614 40
Francis.....	Charlton.....	Southport avenue.....	23	34 68	80 50	130 46
Flournoy.....	Kedzie avenue.....	Central Park avenue.....	.....	.....	.....	.....
Flournoy.....	Albany avenue.....	Central Park avenue.....	.....	.....	.....	.....
Fifty-first.....	Lincoln.....	Leavitt.....	104	157 02	364 00	782 10
Fairfield avenue.....	Chicago avenue.....	Augusta.....	29	43 51	101 50	176 89
*Flournoy.....	California avenue.....	Washtenaw avenue.....	.....	.....	.....	.....
*Forty-sixth.....	Union avenue.....	Stewart avenue.....	.....	.....	.....	.....
*Fiftieth.....	Cottage Grove avenue.....	St. Lawrence avenue.....	.....	.....	.....	.....
Green.....	Sixty-seventh.....	Sixty-ninth.....	26	81 20	91 00	150 86
Herdon.....	Balmoral avenue.....	Roscoe.....	29	43 49	101 50	169 37
Homan avenue.....	Central Park boulevard.....	Washington boulevard.....	26	39 00	91 00	168 74
Humboldt avenue.....	Western avenue.....	California avenue.....	27	40 43	94 50	185 56
Hamlin avenue.....	Ogden avenue.....	Twenty-sixth.....	163	244 34	570 50	987 74
Hamlin avenue.....	Ogden avenue.....	Thirty-first.....	141	212 79	493 50	743 19
Hamlin avenue.....	Douglas Park boulevard.....	W. Sixteenth.....	63	94 79	220 50	394 09
Hinman.....	Western avenue.....	Pan-Handle R. R.....	11	16 50	38 50	91 74
Irving avenue.....	Everett.....	Center.....	34	50 94	119 00	218 68
James.....	Laurel avenue.....	Auburn.....	16	24 15	56 00	135 77
Kedzie avenue.....	Milwaukee avenue.....	Belmont avenue.....	137	205 61	479 50	971 07
Langley avenue.....	Sixty-third.....	Sixty-ninth.....	145	216 99	507 50	806 71
Lawndale avenue.....	Thirty-first.....	Chicago river.....	78	116 94	273 00	456 36
Logan avenue.....	Wallace.....	U. S. Y. and T. R. R.....	26	38 84	91 00	142 90
Lawrence avenue.....	Sheffield avenue.....	Lake Michigan.....	35	52 58	122 50	392 97
Melrose.....	Western avenue.....	Robey.....	43	04 66	150 50	269 02
Montrose boulevard.....	Robey.....	Lincoln avenue.....	19	28 50	66 50	188 32
Mead.....	Fullerton avenue.....	Logan.....	61	91 50	213 50	365 98
May.....	Fifty-ninth.....	Sixty-third.....	37	55 50	129 50	242 62
May.....	Sixty-eighth.....	Sixty-ninth.....	36	54 27	126 00	232 21
*Moore.....	Wood.....	Douglas Park boulevard.....	.....	.....	.....	.....
Thirty-third.....	Ashland avenue.....	Wood.....	25	37 60	87 50	249 40
Thirty-fifth court.....	Oakley avenue.....	Boulevard.....	13	18 00	42 00	65 64
North Fifty-ninth.....	Clark.....	Robey.....	28	42 00	98 00	221 20

## WATER SERVICE PIPES LET AND PUT IN BY CONTRACT DURING YEAR 1895—CONTINUED.

STREET.	FROM	TO	Number of Pipes.	Assessor's Cost.	Taps.	Amount of Contract.
Nutt avenue.....	Seventieth .....	Seventy-fifth.....	30	\$ 45 00	\$ 105 00	\$ 177 72
*120th .....	Halsted .....	Clinton.....	.....	.....	.....	.....
Paulina .....	Belmont avenue.....	Roscoe .....	.....	.....	.....	.....
Peoria .....	Sixty-seventh.....	Sixty-ninth .....	32	48 06	112 00	231 62
Rascher avenue .....	E. Ravenswood Park .....	Ashland avenue.....	49	73 77	171 50	281 48
Selwyn avenue .....	Everett .....	Center .....	36	54 00	126 00	245 52
St. Charles avenue .....	Everett .....	Center .....	46	69 02	161 00	307 72
Swift .....	Francis .....	Ridge road .....	23	34 48	80 50	154 35
Sherman .....	Root .....	Forty-third .....	28	42 00	98 00	125 06
Seventieth court .....	St. Lawrence avenue .....	Eastern terminus.....	4	14 00	6 00	24 76
Seventy-second place .....	Stony Island avenue.....	Illinois Central R. R. ....	33	49 50	115 50	195 69
South Chicago avenue.....	South Park avenue.....	Stony Island avenue .....	166	248 30	581 00	1,305 46
Seventy-second .....	Stony Island avenue.....	Illinois Central R. R. ....	49	73 75	171 50	278 56
Seventy-third .....	Stony Island avenue.....	Illinois Central R. R. ....	53	79 73	185 50	323 07
Sangamon .....	Sixty-seventh .....	Sixty-ninth .....	21	31 67	73 50	106 51
Sawyer avenue.....	Twenty-second .....	Twenty-fourth .....	12	18 00	42 00	83 56
Seventy-fifth .....	Stony Island avenue.....	Illinois Central R. R. ....	74	111 00	259 00	653 96
St. Lawrence avenue .....	Sixty-third .....	Seventy-third .....	240	360 96	840 00	1,832 64
South Park avenue.....	Sixty-third .....	Seventy-first .....	203	805 53	710 50	1,533 65
Shields avenue.....	Fifty-fifth .....	Fifty-eighth .....	5	7 50	17 50	68 10
*Sixty-seventh .....	South Park avenue.....	Stony Island avenue .....	.....	.....	.....	.....
Sixty-seventh .....	Halsted .....	Sangamon .....	.....	.....	.....	.....
Sixty-ninth court .....	Cottage Grove avenue .....	South Chicago avenue .....	18	27 12	63 00	148 20
Thirty-second .....	Halsted .....	Laurel .....	20	29 97	70 00	159 83
Trumbull avenue.....	Douglas Park boulevard .....	West Twenty-sixth .....	334	502 01	1,169 00	2,009 67
*Union avenue.....	Irving Park .....	Sixty-first .....	.....	.....	.....	.....
Vernon avenue.....	Sixty-ninth .....	Everett avenue .....	17	25 65	59 50	112 05
Vernon avenue.....	Everett .....	Seventy-third .....	139	208 53	486 50	810 34
Webster .....	Clark .....	Center .....	62	98 04	217 00	474 26
Wilson .....	Leavitt .....	Robey .....	37	55 50	129 50	165 76
Wallace avenue.....	Belmont avenue.....	Robey .....	15	22 53	52 50	91 02
		Humboldt boulevard.....	130	195 59	455 00	791 11

West Twenty-first.....	Pan Handle R. R.....	Boulevard .....	51	76 74	178 50	491 03
Wilton.....	Grace .....	Byron.....	180	195 59	455 00	791 11
West Sixteenth .....	Kedzie avenue.....	Albany avenue.....	31	31 56	78 50	243 75
Wolcott.....	Webster avenue .....	North Fifty-ninth.....	27	40 50	94 50	188 39
Wright.....	Fifty-ninth.....	Claremont avenue .....	63	94 76	220 50	839 94
Wabash avenue.....	Sixty-seventh.....	Seventy-third .....	130	160 00	480 00	655 62
West Taylor .....	California avenue .....	Kedzie avenue .....	41	61 50	143 50	288 31
West Twentieth.....	Rockwell.....	Washienaw avenue .....	16	24 00	56 00	116 00
Palmer avenue.....	Webster avenue.....	North Fifty-ninth.....	21	31 04	73 50	136 49
TOTALS .....	.....	.....	5,857	\$8,085 07	\$18,749 50	\$36,111 12

\* Not Finished.

† On Account.

‡ Withdrawn.

\$ Paved.

! No Main.

Average cost per pipe under contract let in 1894.....

\$17 77 85

Average cost per pipe under contract let in 1895.....

11 72 86

Average saving per pipe in 1895 over 1894.....

6 04 88

Being a saving to property holders of \$32,409 31.

## REPORT OF METER MECHANICAL DEPARTMENT.

Number of meters in service December 31, 1894 .....	4,824
Number of meters set in new location during 1895 .....	345
Total number of meters in service during 1895 .....	5,169
Number of meters removed—property assessed .....	21
Number of meters removed permanently—supply cut off .....	28
Total number of meters removed during 1895 .....	49
Total number of meters in service December 31, 1895 .....	5,120
Number of hydraulic elevators in use December 31, 1894 .....	280
Number of hydraulic elevators removed during 1895 .....	2
Total number of hydraulic elevators in use December 31, 1895 .....	278
Number of meters set during 1895 in new location .....	345
Number of meters set during 1895 replacing others .....	84
Total number of meters set during 1895 .....	429
Number of meters in stock December 31, 1894 .....	59
Number of meters bought from manufacturers during 1895 .....	283
Number of meters bought from private parties during 1895 .....	35
Number of meters furnished by private parties during 1895 .....	32
Number of City meters repaired and in stock December 31, 1895 .....	48
Total number of meters on hand during 1895 .....	457
Total number of meters set during 1895 .....	429
Total number of meters on hand December 31, 1895 .....	28
Number of meters repaired during 1895 for which bills were rendered .....	1,248
Number of meters repaired during 1894 for which bills were rendered .....	1,235

## REPORT OF THE ACCOUNTING DEPARTMENT.

## INCOME ACCOUNT.

## REVENUE.

General assessment (May 1, 1895) .....	\$ 2,392,640 90
Increase back tax .....	4,120 74
Increase current tax .....	209,112 03
Increase shut off .....	4,232 33
	<hr/>
	\$ 2,610,106 00
Less —	
Discount allowed .....	\$ 298,223 26
Erroneous assessments refunded .....	2,757 95



Decreased on account of municipal and public buildings .....	\$ 36,932 70	
Decreased on account of religious, charitable and educational institutions.....	26,456 76	
Decreased on account of over-payments, as per affidavits and special examinations, removal or destruction of buildings, changes to meter control, and other causes .....	134,479 39	
Allowances made on current bills to cover drawback on amounts previously paid on vacant property, in accordance with City Ordinance passed January 14, 1895.....	34,992 72	
	<hr/>	\$ 533,842 78
Net revenue from assessed rates.....		\$ 2,076,263 22
Amount charged for water supplied through meters.....		1,058,411 88
Assessor's miscellaneous charges for sprinkling-wagons, tugs, skating rinks, etc.....		24,089 25
Assessor's charges on special assessments.....		8,035 07
Net gain of Permit Department, as per statement.....		5,719 71
		<hr/>
		\$ 3,172,519 13
Net loss of Meter Department, as per statement.....		2,787 90
		<hr/>
Net revenue .....		\$ 3,169,731 23

## EXPENSES.

Rent of Hyde Park office to May 15, 1895 .....	\$ 945 00	
Rent of Town of Lake office to April 30, 1895.....	333 32	
Gas bills, Town of Lake office.....	48 20	
Expressmen, Shut-off Department. ....	234 00	
Binding vouchers and Assessor's checks.....	318 42	
Postage.....	7,300 00	
Railroad transportation .....	294 73	
Street car tickets .....	1,380 32	
Stationery .....	3,490 94	
Shut-off tools, tapes, etc.....	275 87	
Horse feed for Plumbing Inspector....	126 00	
Miscellaneous.....	252 81	
Pay rolls (Meter and Permit Departments omitted).	221,351 38	
	<hr/>	\$ 236,350 99
Net income .....		\$ 2,933,380 24

## BALANCE SHEET.

## DEBIT.

Balance uncollected December 31, 1894.....	\$ 377,250 35
Inventory, Meter Department, December 31, 1894..	7,004 70
Inventory, Permit Department, December 31, 1894,	5,279 77
Cash from Comptroller in 1895 (for merchandise).....	37,957 82
Cash from Comptroller in 1895 (for expenses).....	309,273 30
Net income 1895, as per income account.....	2,933,380 24

## CREDIT.

Debit balance against Comptroller December 31, 1895.....	\$3,165,835 98
Amount charged Cashier, Department of Public Works.....	20,688 05
Amount charged Special Assessment Department,	26,784 57
Amount charged City Engineer's Department....	1,828 50
Inventory, Meter Department.....	8,113 50
Inventory, Permit Department.....	4,079 03
Balance uncollected—assessed rates.....	385,652 22
Balance uncollected—meter rates.....	54,208 40
Balance uncollected—meter repairs.....	2,955 93
	<hr/>
	\$3,670,146 18      \$3,670,146 18

## PERMIT DEPARTMENT.

## INCOME ACCOUNT.

## CREDIT.

Amount received for inserting ferrules, per Cash Book..	\$ 28,180 00
Amount charged for ferrules inserted for street improvement service and deducted from contractors' bills—	
5,357 at \$3.50 each.....	18,749 50
Amount received for 728 plumbers' licenses at \$25.00 each .....	18,200 00
Stock on hand, as per inventory .....	4,079 03
Amount due for re-taps.....	1,828 50
	<hr/>
	\$ 71,037 03

## DEBIT.

Stock account, January 1, 1895, per inventory.....	\$ 5,279 77
Ferrules, plugs and drills purchased during 1895.....	4,826 93
Tools, tapes, etc., purchased during 1895.....	128 99
Printing and stationery.....	55 40
Transportation .....	22 77
Repairs to tools at Water Works shop.....	843 69
Salaries, as per pay rolls.....	54,159 77
	<hr/>
	65,317 32
Net profit of the Department.....	<hr/>
	\$ 5,719 71



## METER MECHANICAL DEPARTMENT.

## INCOME ACCOUNT.

## DEBIT.

Stock account, January 1, 1895, per inventory.....	\$ 7,004 70
Meters bought during 1895.....	28,285 76
Labor and material supplied at Water Works shops.....	4,845 13
Printing and stationery.....	55 40
Transportation .....	17 70
Horseshoeing and repair to buggy.....	29 25
Freight and express charges.....	10 20
Tools .....	80 25
Sawdust .....	16 00
Horse feed .....	54 00
Gasoline, oil, matches, nails, etc.....	41 36
Salaries, as per pay rolls.....	17,407 53
	<u>\$ 57,847 28</u>

## CREDIT.

Cash received for meters 2 inches and over .....	\$ 20,688 05
Cash received for meters under 2 inches.....	16,518 64
Cash received for repairs to meters .....	6,783 26
Amount due and uncollected for repairs.....	2,955 93
Stock on hand, as per inventory.....	8,113 50
	<u>55,059 38</u>
Net loss of the Department.....	\$ 2,787 90

DETAILED STATEMENT OF CASH COLLECTED DURING 1895.  
(NET.)

1895.	Assessed Rates.	Meter Rates.	Permits.	Licenses.	Assessor's Miscellaneous.	Meter Mechanical Dept.	TOTAL.
January .....	\$ 74,868 64	\$ 81,224 72	\$ 300 30	\$3,250 00	\$ 21 25	\$2,030 03	\$161,694 94
February .....	32,584 06	73,611 90	519 45	2,900 00	31 50	1,390 95	111,037 86
March.....	28,525 44	74,777 37	1,919 20	2,750 00	33 50	1,783 54	109,789 05
April .....	14,727 74	74,082 78	3,313 00	2,550 00	224 77	2,283 32	97,181 61
May .....	474,532 83	88,622 60	3,475 20	2,075 00	2,428 74	1,949 55	573,083 92
June.....	357,181 98	69,720 60	2,659 80	1,925 00	3,046 01	1,962 54	436,495 93
July.....	120,196 46	81,037 26	2,157 95	1,525 00	3,571 14	2,258 15	210,745 96
August .....	45,995 61	88,701 13	2,119 50	600 00	3,613 32	1,849 25	142,878 81
September.....	30,809 85	78,730 12	2,628 10	250 00	3,140 63	2,018 71	117,577 41
October.....	28,999 48	89,422 83	4,895 20	200 00	1,571 88	2,067 10	127,156 49
November .....	336,437 61	89,851 26	1,822 30	100 00	5,772 76	2,178 86	493,162 79
December.....	468,759 60	114,420 91	2,370 00	75 00	633 75	1,529 90	587,789 16
TOTALS .....	\$2,070,619 30	\$1,004,203 48	\$28,180 00	\$18,200 00	\$24,089 25	\$23,301 90	\$3,168,593 93

## DEPARTMENT OF PUBLIC WORKS.

The following amounts should be added to the foregoing :

Amounts due from Cashier, Department of Public	
Works on account of large meters .....	\$20,688 05
Amount due from Special Assessment Department	
for ferrules on street improvements .....	18,749 50
Amount due from Special Assessment Department	
for Assessor's cost on street improvements .....	8,035 07
Amount due from Engineer's Department for retaps.	1,828 50
<b>TOTAL .....</b>	<b>\$49,301 12</b>

DETAILED STATEMENT OF ASSESSOR'S MISCELLANEOUS  
RECEIPTS.

	Inspection.	Leak and Waste.	Shut Off.	Sprinklers.	Tugs.	Miscella- neous.	Total.
January .....			\$ 16 25			\$ 5 00	\$ 21 25
February .....			29 25			2 25	31 50
March .....			31 50			2 00	33 50
April .....			110 24	\$ 63 83		51 20	224 77
May .....	\$ 91 00		82 74	2,235 00	\$20 00		2,428 74
June .....	73 50		93 67	2,837 50	10 00	31 34	3,046 01
July .....	8 00		38 89	3,450 00	30 00	44 25	3,571 14
August .....	20 00	\$ 7 50	29 75	3,487 50		68 57	3,613 32
September .....	71 50	16 63		2,987 50		65 00	3,140 63
October .....	24 50	4 75	17 13	1,520 50		5 00	1,571 88
November .....	281 00		19 13	437 50		5,025 13	5,772 76
December .....	438 00		40 75			155 00	633 75
<b>Total .....</b>	<b>\$1,007 50</b>	<b>\$28 88</b>	<b>\$ 509 30</b>	<b>\$17,018 83</b>	<b>\$60 00</b>	<b>\$5,464 74</b>	<b>\$24,089 25</b>



## WATER OFFICE REPORT.

91

## WATER OFFICE—DETAILED STATEMENT OF PAY ROLLS FOR THE YEAR ENDING DECEMBER 31, 1895.

DEPARTMENTS.	Assessor's.	Collector's.	Inspector's.	Meter Rates.	Meter Repairs.	Permit.	Shut-off.	* Town of Lake.	Total.
January (Note A).....	\$ 1,916 01	\$ 3,506 36	\$ 2,032 90	\$ 2,014 47	\$ 1,942 88	\$ 3,432 82	\$ 2,687 63	\$ 1,515 14	\$ 19,688 21
February (Note A).....	2,335 27	3,729 82	4,228 79	1,878 75	1,814 13	3,580 56	2,390 63	1,832 75	21,790 70
March (Note A).....	3,478 40	7,352 59	8,573 00	2,595 24	1,894 00	5,820 53	3,649 49	3,253 18	36,616 43
April.....	2,422 66	4,761 66	3,025 00	2,190 00	1,351 50	4,198 67	1,771 50	2,007 41	22,328 40
May.....	1,850 69	5,770 11	2,972 67	2,281 50	1,116 00	4,289 85	2,161 51	602 50	21,044 83
June.....	2,191 70	6,362 24	4,165 00	2,135 50	1,143 50	4,165 00	2,908 50	.....	23,071 44
July.....	2,388 57	6,050 47	4,965 71	2,323 50	1,326 00	4,880 82	3,329 25	.....	25,264 32
August.....	2,543 51	6,042 36	4,656 05	2,323 50	1,360 02	4,738 53	2,907 50	.....	24,571 46
September.....	2,584 16	6,166 66	4,612 50	2,212 50	1,340 00	4,702 00	2,812 75	.....	24,430 57
October.....	2,572 42	6,103 76	4,612 50	2,323 50	1,392 00	4,836 00	2,969 25	.....	24,809 43
November.....	2,606 16	6,191 66	4,612 50	2,268 00	1,377 50	4,762 00	2,836 50	.....	24,654 32
December.....	2,606 16	6,241 66	4,612 50	2,268 00	1,350 00	4,763 00	2,807 25	.....	24,648 57
Total.....	\$39,495 71	\$68,339 85	\$54,259 12	\$26,814 46	\$17,407 53	\$54,159 77	\$33,231 76	\$ 9,210 98	\$292,918 68
Monthly Average.....	\$ 2,457 97	\$ 5,694 95	\$ 4,521 51	\$ 2,234 54	\$ 1,450 63	\$ 4,513 31	\$ 2,769 31	\$ 2,046 88	\$24,409 89

Note A.—25 per cent. of January and February Pay Rolls were retained and added to the March Rolls.

\* Town of Lake Office closed May 15. Books removed to City Hall and employees distributed among the regular departments.

## DETAILED STATEMENT OF ASSESSOR'S INCREASE AND DECREASE CHECKS FOR THE YEAR 1895.

1895	INCREASE.				DECREASE.			
	Current Tax.	Back Tax.	Shut-off.	Total.	Current Tax.	Back Tax.	Draw-Back.	Total.
January .....	\$ 4,760 16	\$ 295 57	\$ 288 17	\$ 5,343 90	\$ 12,547 27	\$ 1,446 74	\$ 36 50	\$ 14,030 51
February .....	2,022 37	55 00	189 37	2,266 74	3,665 94	810 66	47 23	4,523 83
March .....	3,320 88	149 25	336 12	3,806 25	2,119 91	308 10	385 95	2,873 96
April .....	2,692 89	28 50	245 47	2,966 86	2,776 84	799 69	18 50	3,595 03
May .....	50,792 19	711 18	88 75	51,587 12	15,250 63	3,032 03	6,332 77	24,615 43
June .....	18,335 34	441 67	167 00	18,944 01	7,249 82	3,854 61	8,590 81	19,695 24
July .....	21,703 74	235 88	552 30	22,481 92	8,046 85	2,703 92	4,279 25	15,030 02
August .....	40,326 53	326 08	1,017 62	41,670 23	9,513 99	3,257 37	1,162 11	13,933 47
September .....	31,017 21	543 75	537 51	32,098 47	9,439 84	2,646 65	558 77	12,645 26
October .....	22,726 01	1,268 58	290 50	24,285 09	6,283 04	1,776 48	990 51	9,050 03
November .....	6,178 01	20 00	328 68	6,526 69	15,717 63	2,833 30	4,454 45	23,005 38
December .....	5,236 70	55 28	195 84	5,487 82	79,030 21	2,697 33	8,135 87	89,863 41
Total .....	\$ 209,112 03	\$ 4,130 74	\$ 4,232 33	\$ 217,465 10	\$ 171,641 97	\$ 26,226 88	\$ 34,992 72	\$ 232,861 57

Permit me in closing this report to express my grateful appreciation of your courteous treatment, active interest, and earnest co-operation in the welfare of this Bureau, as well as to testify to the faithful and conscientious assistance of the gentlemen with whom I am fortunate enough to be surrounded as heads of the various sub-departments, and whose loyal support has rendered it possible for me to express my conviction that the instructions of yourself and his honor, Mayor Swift, that this Department be conducted in accordance with honest methods and business principles, has been adhered to.

Yours respectfully,

J. C. CRAIG,

*Supt. Water Department.*





REPORT OF

Map Department

FOR 1895.



## MAP DEPARTMENT.

---

HON. W. D. KENT :

DEAR SIR :—I have the honor to submit herewith the annual report of the Map Department for the year 1895.

The work performed by the Department during the year was as follows :

Plats prepared for—

Lamp post ordinances.....	552
Lamp post orders .....	368
Lamp post assessments .....	151
Street improvement assessments .....	436
Street and alley opening assessments .....	16
Street and alley opening ordinances .....	288
Street Engineer's estimates.....	710
Surveys .....	132
Sidewalk assessments.....	950
Water pipe assessments.....	194
Law department .....	720
Miscellaneous purposes .....	151
Total.....	4,668

Two hundred and seventy-two (272) new subdivisions of real estate within the City limits were recorded, and three hundred and seventy-two (372) entries were made of the same upon the several sets of atlases in charge of this office.

Thirty-two (32) vacations were placed on record and thirty-five (35) entries were made of the same on the atlases.

Fourteen (14) street openings were recorded and twenty (20) entries were made of the same on the atlases.

Plats of the entire City of Chicago, for the use of the City Gas Inspector's Department, were begun during the summer of 1895. Two volumes have been completed.

The names of 1,576 streets were changed on the atlases during the year. The consequent changes were made in the house numbers.

The combined length of all the alleys in the City of Chicago was computed in this Department, and is shown in the following table :

## DEPARTMENT OF PUBLIC WORKS.

DETAILED REPORT SHOWING THE LENGTH IN MILES AND FEET OF ALL OPEN ALLEYS IN THE  
CITY OF CHICAGO, ON THE FIRST DAY OF JANUARY, 1896.

PARTS OF CHICAGO	Total Number of Volumes	NORTH AND SOUTH		EAST AND WEST		N.-W. AND S.-E.		N.-E. AND S.-W.	
		Miles	Feet	Miles	Feet	Miles	Feet	Miles	Feet
Rogers Park .....	I	4	3,573	9	389	3	1,293	0	865
Lake View .....	I	52	2,275	40	1,320	6	1,170	0	3,075
Norwood Park .....	I	2	3,155	2	258	4	308	1	3,328
Jefferson .....	III	63	5,074	41	2,443	8	4,859	4	1,718
Original Chicago .....	IV	201	1,965	179	2,324	18	4,025	15	735
Cicero .....	I	32	1,850	18	3,085	2	3,320	0	4,520
Town of Lake .....	IV	167	2,375	85	2,335	1	1,295	3	1,975
Hyde Park .....	V	169	815	49	505	18	2,223	4	185
Calumet .....	I	58	3,945	27	4,800	3	2,110	2	1,365
Total .....	XXI	772	3,907	453	969	66	5,263	32	2,426

Grand total length of all open alleys : 1,325 miles and 2,005 feet.



The thirteenth extension of the City, Norwood Park, was added to Chicago November 7, 1893, but was not platted on the official atlases of this Department until the past year.

The City was enlarged one square mile by the addition of the fourteenth extension of the City limits, to Calumet, as authorized by the ordinance passed February 25, 1895. This extension consists of the south half of section 20 and the north half of section 29, township 37 north, range 14 east of 3d principal meridian.

Volume 3 of the Town of Jefferson was platted in this Department in the year 1895.

#### THE GROWTH OF CHICAGO — AREA.

	Square Miles.
After the sixth annexation, April 29, 1889.....	43.812
Part of Cicero, E. ½ Sec. 4 and 9—39—13, July 15, 1889.....	1.000
City of Lake View, July 15, 1889 .....	10.408
Town of Jefferson (exc. Secs. 25, 35 and 36), July 15, 1889...	29.530
Town of Lake, July 15, 1889.....	36.000
Village of Hyde Park, July 15, 1889 .....	49.132
Village of Gano, April 1, 1890.....	1.773
South Englewood, May 12, 1890 .....	2.899
Village of Washington Heights, Nov. 4, 1890.....	2.810
Village of West Roseland, Nov. 4, 1890.....	1.793
Village of Fernwood, April 7, 1891 .....	0.981
Village of West Ridge, April 19, 1893.....	2.125
Village of Rogers Park, April 19, 1893 .....	1.750
Village of Norwood Park, Nov. 7, 1893.....	2.125
Fourteenth extension, part of Calumet, Feb. 25, 1895.....	1.000

Total area of the City of Chicago, December 31, 1895.... 187.138

The extreme width of Chicago is now  $14\frac{1}{2}$  miles, and its extreme length, 26 miles.

Respectfully submitted,

O. L. WULLWEBER,

*Superintendent Map Department.*



REPORT OF THE

# Bureau of Sewers

CITY OF CHICAGO





# BUREAU OF SEWERS

---

HON. W. D. KENT,

*Commissioner of Public Works:*

DEAR SIR :—Herewith I submit the Twentieth Annual Report of the Bureau of Sewers, for year ending December 31, 1895.

For building sewers and catch-basins.....	\$356,940 01
For cleaning sewers and catch-basins.....	134,424 44
For repairing sewers and catch-basins.....	52,655 38
For adjusting to grade manholes and catch-basins on streets being improved.....	41,058 28
For house drains.....	31,225 47
For appropriated salaries.....	27,819 28
For office expenses.....	760 46
For pumping stations.....	35,447 96
Total.....	\$680,331 28

During the year the important question of how to plan sewers so as to avoid the emptying of sewage into Lake Michigan has occupied much of the attention of this Bureau. The drainage canal, which will soon be completed at a cost of millions of dollars, and which is designed to improve the sanitary condition of the City, should certainly be the outlet for all new systems of sewers. Had this outlet been considered from its beginning the problem which confronts this Department would have been materially simplified, as in the last two or three years several large systems of sewers have been completed which discharge into the lake. For this reason the intercepting sewers will necessarily cost a great deal more because of their increased size and greater depth, as some of the systems built within the last few years were low-level sewers necessitating pumping.

A system of sewers on the old plan had been designed for the so-called Eighty-third street district, which were to drain ten square miles of territory into the lake. Pending confirmation by the Court,

His Honor, the Mayor, and yourself, called attention to the fact that this system ought to be reversed so as to flow toward the new drainage canal. Investigation showed that by adding to the district six and one-half miles of territory lying north along Western avenue an outfall sewer could be constructed along Western avenue from Seventy-ninth street north to the south fork of the south branch of the Chicago river at the Stock Yards slip. This outfall sewer would drain one mile on both sides of Western avenue between the P., C., C. & St. L. Ry. and Albany avenue, and extending from Eighty-seventh street north to the Stock Yards slip, and at the same time form an outlet for the low lands between Seventy-fifth and Eighty-seventh streets, and east of Western avenue to Lake Michigan. By building a pumping station in the vicinity of Seventy-ninth and Sangamon streets, where the higher territory begins, the sewage could be made to flow into the drainage canal. Owing to the favorable topographical conditions of the land a saving of fifteen per cent. could be effected for the land owners, as the fall of the outfall sewers was such that an increase in the diameter of the sewer of one foot, making it twelve feet instead of eleven feet, as planned, would be sufficient for the addition of six and one-half square miles of new territory. An ordinance has been passed by the City Council for this new system, and it is hoped that the assessment will be filed and tried in the April term of court so that the sewer can be constructed in the summer of this year.

The question of diverting the sewage from Lake Michigan in the southern or Hyde Park district is especially difficult, as from Seventy-third street north to Twelfth street there are ten outfall sewers, from five to six feet in diameter, emptying into the lake, three of which are low-level sewers with independent pumping stations. The district from Twelfth street north to Fullerton avenue has no sewers draining into the lake. The streets of this district, therefore, will not have to be torn up. North of Fullerton avenue to the City Limits there are twelve brick sewers, from two to five feet in diameter, emptying into the lake. To intercept these a sewer will have to be built which will flow south, from the northern limits to Fullerton avenue, a distance of five miles. At this point possibly the Fullerton avenue conduit, twelve feet in diameter (now in operation), could be utilized to convey the sewage west to the north branch of the Chicago river.

Millions of dollars have been expended in the district between Twelfth and Seventy-third streets, and to reverse the sewers here is out of the question because of the expense. The original intention



of the Board of Sanitary Trustees to build an open channel somewhere in this territory, leading into the drainage canal and forming an outlet for the sewers, has been abandoned. The nearest present outlet is the Stock Yards slip at Thirty-ninth and Halsted streets. The only remedy left is the building of a large conduit, or intercepting sewer, as near the lake as practicable, from Seventy-third street north to Thirty-ninth, and from Thirty-fifth to Thirty-ninth; thence west along Thirty-ninth to Halsted street. This would necessitate the building of a pumping plant in the vicinity of Halsted and Thirty-ninth streets to lift the sewage into the slip so that it would flow to the drainage canal. It will be necessary to reverse the Twenty-second and Twelfth street sewers westwardly into the river, as this is the most economical plan. The conduit along Thirty-ninth street may be extended to Lake Michigan in order to have an intake from the lake and to utilize the pumping plant in the dry seasons of the year for flushing purposes and furnish the drainage canal with the required volume of water. These conduits along the lake and Thirty-ninth street may be placed sufficiently below the surface to admit of tunneling and thus avoid disturbing the roadbed and existing underground work. In this way no expense will be incurred in the condemnation of lands, as all sewers and conduits can follow the streets or be so far under the surface as to avoid injury to private property. It will also do away with the expense of keeping several small pumping stations in operation.

Borings taken from Seventy-third street north to Thirty-ninth and west to Halsted show that no great engineering difficulties will interfere with the tunneling of the conduits. In the southern portion, however, it may be necessary to make an open cut.

The territory lying south of the southern limits of the drainage districts, or Eighty-seventh street, will have to be sewered into the Calumet river. It is only a question of time when something will have to be done with that stream, as there are a number of large brick sewers draining into it—among others, the ten and one-half foot Wentworth avenue sewer. The Indiana avenue outlet sewer, draining Roseland and Kensington, to be built this summer, will also empty into this river. Several sewers in South Chicago, and three from the villages of Morgan Park, Blue Island and Harvey also pollute this stream. The reversal of this river to the Drainage Canal, from an engineering standpoint, could be made without serious difficulty.

SIZE AND LENGTH OF SEWERS CONSTRUCTED IN THE DIFFERENT WARDS IN THE CITY DURING  
THE YEAR 1895.

WARDS.	9-inch.	12-inch.	15-inch.	18-inch.	2-foot.	2½-foot.	3-foot.	3½-foot.	9-foot.	9½-foot.	10-foot.	TOTAL.
6th . . . . .	.....	2,809	1,619	.....	.....	.....	.....	.....	.....	.....	.....	4,928
10th . . . . .	.....	6,640	2,511	.....	668	.....	.....	.....	.....	.....	.....	9,819
11th . . . . .	.....	.....	.....	.....	.....	.....	824	.....	.....	.....	.....	824
12th . . . . .	.....	9,076	7,443	.....	.....	.....	.....	.....	.....	.....	.....	16,519
18th . . . . .	.....	4,242	325	.....	.....	.....	.....	.....	.....	.....	.....	4,567
14th . . . . .	.....	7,932	3,092	.....	.....	.....	.....	.....	.....	.....	.....	11,024
15th . . . . .	.....	2,768	680	.....	.....	.....	.....	.....	.....	.....	.....	3,448
24th . . . . .	.....	.....	875	.....	687	.....	.....	.....	.....	.....	.....	1,562
25th . . . . .	.....	5,377	4,024	742	965	.....	.....	.....	.....	.....	.....	11,108
26th . . . . .	.....	14,819	8,204	.....	3,970	1,335	.....	.....	.....	.....	.....	26,328
27th . . . . .	.....	5,268	8,098	483	1,415	1,700	.....	.....	.....	.....	.....	17,004
29th . . . . .	.....	615	685	.....	639	.....	.....	.....	.....	.....	.....	1,339
30th . . . . .	.....	13,166	8,088	.....	639	.....	.....	.....	.....	.....	.....	21,892
31st . . . . .	176	13,763	8,607	647	2,386	415	1,938	940	.....	.....	.....	28,872
33rd . . . . .	641	1,577	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,318
33rd . . . . .	.....	4,484	5,032	.....	700	.....	.....	.....	.....	.....	.....	10,316
34th . . . . .	.....	4,855	3,659	.....	6,638	674	.....	.....	2,005	4,650	100	22,081
TOTAL . . . . .	817	97,390	62,942	1,822	18,707	4,214	2,762	940	3,005	4,650	100	196,349



TOTAL COST FOR THE CONSTRUCTION OF SEWERS AND CATCH-BASINS, AND MAINTAINING SAME, SINCE THE ESTABLISHMENT OF THE SEWERAGE SYSTEM IN 1855 TO JANUARY 1, 1896.

Year.	Lineal feet of Sewers Built.	No. of Catch-Basins Built.	No. of Man-holes Built.	No. of House Drains Put In.	Cost of Cleaning Sewers and Catch-Basins.	Street Intersections and Repairs of Sewers.	Cost of Construction.
Previous to 1861.	283,586	1,174	2,102	2,194	\$ 5,619 48	No amts. found on reports.	\$ 665,188 46
1861.....	2,826	18	33	243	1,715 60	\$ 2,951 76	3,617 31
1862.....	15,676	72	66	365	4,897 24	3,024 07	57,036 42
1863.....	39,605	192	204	536	5,065 40	2,058 11	169,527 38
1864.....	25,021	189	183	512	9,417 81	4,597 63	87,221 48
1865.....	29,948	223	168	1,288	13,818 07	7,493 56	137,643 02
1866.....	48,127	327	271	3,732	28,445 16	7,773 65	225,564 53
1867.....	89,681	418	555	3,703	26,540 81	9,581 42	416,730 51
1868.....	47,841	480	293	3,261	26,954 06	11,287 08	197,152 92
1869.....	139,705	771	928	3,979	26,015 68	7,527 16	654,141 26
1870.....	78,166	626	468	5,187	21,464 30	10,954 74	258,664 70
1871.....	50,716	277	357	3,093	17,415 46	42,557 72	153,295 36
1872.....	47,342	245	341	1,435	21,484 16	16,975 40	173,255 76
1873.....	146,702	897	1,015	4,691	31,229 27	29,781 97	450,222 90
1874.....	222,322	1,054	1,474	6,292	36,884 57	21,996 72	587,507 38
1875.....	120,971	958	789	3,365	32,098 23	28,107 40	342,932 89
1876.....	15,248	155	75	1,172	29,345 41	19,803 29	79,545 28
1877.....	64,666	363	431	1,822	35,763 33	16,959 44	291,829 63
1878.....	88,031	492	603	1,544	25,704 37	19,259 49	37,264 97
1879.....	145,381	820	1,043	2,953	29,286 67	10,649 69	130,840 50
1880.....	79,128	271	554	4,196	25,561 48	25,068 11	92,544 08
1881.....	132,076	548	917	4,810	34,512 15	30,967 89	452,310 06
1882.....	98,515	792	725	5,677	33,969 35	26,618 05	224,450 16
1883.....	75,364	835	497	5,963	34,749 74	25,140 81	232,084 33
1884.....	101,547	751	654	5,957	43,678 03	37,893 29	258,020 91
1885.....	118,647	796	854	6,325	46,532 18	45,333 02	203,188 03
1886.....	103,193	734	723	7,441	51,110 46	50,707 64	177,647 24
1887.....	90,584	756	605	8,100	50,264 65	43,789 60	186,496 98
1888.....	104,903	816	674	8,152	52,432 41	53,782 97	228,567 57
1889.....	171,023	1,351	1,190	4,303	61,503 01	63,459 25	350,234 54
Annexed Districts } previous to 1890, {	993,573	6,102	8,620	Estimated cost of construction, } cost of maintenance not known. {			2,614,224 75
1890.....	379,203	2,986	2,604	9,279	107,873 34	83,388 08	826,718 67
1891.....	546,918	3,979	3,786	11,312	123,620 44	95,906 75	1,532,990 44
1892.....	549,258	3,866	3,714	12,562	142,720 52	70,747 83	1,290,017 98
Norwood and Rogers Park } annexed previous to 1893 {	96,697	326	231	No. of house drains and cost of construction not known. {			172,846 30
1893.....	708,176	4,811	4,825	14,198	132,633 51	114,703 78	1,606,720 09
1894.....	350,944	2,597	2,259	8,928	154,225 45	130,749 03	1,014,489 86
1895.....	196,349	1,515	1,409	1,621	134,424 44	93,713 66	356,950 01
Totals.....	*6,597,659	43,583	†46,190	170,191	\$1,658,963 24	\$1,265,309 06	\$16,339,684 66

\*Of this amount, 5,897 feet have been taken up and replaced by sewers of larger size, leaving in place January 1, 1896, 6,591,762 feet, or 1,248.438 miles.

†Of this number, 26 manholes have been abandoned, leaving in place January 1, 1895, 46,164.

Of the above 1,248,438 miles, 482,769 miles are of brick construction and 765,669 miles are of vitrified pipe.

Length and Interior Diameter of Sewers in Place December 31, 1895, in the Different Wards of the City.

WARDS.	6 Inch.	9 Inch.	12 Inch.	15 Inch.	18 Inch.	20 Inch.	22 Inch.	2 Feet.	2½ Feet.	2¾ Feet.	3 Feet.	3½ Feet.	3¾ Feet.	4 Feet.
1st ..	.....	.....	66,572	1,870	.....	.....	.....	15,310	6,077	17,033	12,327	.....	.....	1,926
2d ..	.....	.....	42,821	1,320	.....	.....	.....	25,369	282	15,280	8,648	.....	.....	670
3d ..	.....	.....	37,861	5,904	.....	.....	.....	22,750	.....	14,692	668	.....	.....	670
4th ..	.....	1,889	43,481	10,463	.....	.....	.....	28,117	.....	24,784	5,057	.....	.....	1,061
5th ..	.....	.....	50,315	16,249	.....	.....	.....	34,157	.....	7,020	6,966	.....	.....	4,180
6th ..	.....	.....	73,006	37,095	.....	.....	.....	54,137	.....	24,670	10,446	.....	.....	4,975
7th ..	.....	.....	32,167	3,686	.....	.....	.....	21,572	.....	3,683	4,137	.....	.....	5,040
8th ..	.....	.....	36,601	4,403	.....	.....	.....	20,085	.....	2,645	1,863	.....	.....	4,000
9th ..	.....	.....	40,987	18,726	.....	.....	.....	13,013	.....	971	4,214	.....	.....	4,925
10th ..	.....	.....	159,528	112,245	.....	.....	.....	47,817	.....	15,818	12,128	.....	.....	12,866
11th ..	.....	.....	45,789	3,925	.....	.....	.....	34,093	.....	2,225	1,582	.....	.....	9,541
12th ..	.....	.....	146,383	87,461	.....	.....	.....	81,637	.....	10,725	14,090	.....	.....	10,260
13th ..	.....	.....	94,059	53,048	.....	.....	.....	37,730	.....	7,555	9,851	.....	.....	11,950
14th ..	.....	.....	111,163	59,967	.....	.....	.....	51,178	.....	8,329	4,604	.....	.....	5,217
15th ..	.....	.....	117,641	113,966	.....	.....	.....	60,583	.....	16,776	5,444	.....	.....	2,399
16th ..	.....	.....	20,271	9,371	.....	.....	.....	16,778	.....	882	2,265	.....	.....	5,275
17th ..	.....	.....	21,493	650	.....	.....	.....	35,074	.....	.....	4,815	.....	.....	6,755
18th ..	.....	.....	31,529	.....	.....	.....	.....	32,845	.....	.....	.....	.....	.....	.....
19th ..	.....	.....	42,641	1,014	.....	.....	.....	36,055	.....	.....	1,023	.....	.....	9,390
20th ..	.....	.....	38,838	13,860	.....	.....	.....	23,619	.....	7,333	3,168	.....	.....	3,000
21st ..	.....	.....	46,847	6,848	.....	.....	.....	16,900	.....	12,010	515	.....	.....	2,510
22d ..	.....	.....	35,182	789	.....	.....	.....	22,499	.....	7,525	2,179	.....	.....	660
23d ..	.....	.....	33,146	1,726	.....	.....	.....	25,833	.....	3,841	1,962	.....	.....	3,157
24th ..	.....	.....	36,071	4,482	.....	.....	.....	44,310	.....	1,441	4,531	.....	.....	2,591
25th ..	.....	.....	169,180	86,013	.....	.....	.....	31,132	.....	15,074	11,580	.....	.....	7,591
26th ..	.....	.....	148,299	91,217	.....	.....	.....	35,013	.....	11,192	12,508	.....	.....	11,965
27th ..	.....	.....	41,206	114,230	.....	.....	.....	23,975	.....	6,850	3,814	.....	.....	4,566
28th ..	.....	.....	134,234	58,939	.....	.....	.....	25,048	.....	18,864	11,572	.....	.....	2,336
29th ..	.....	.....	30,101	36,905	.....	.....	.....	9,313	.....	6,342	7,023	.....	.....	6,380
30th ..	.....	.....	146,198	126,928	.....	.....	.....	42,604	.....	12,117	6,639	.....	.....	9,440
31st ..	.....	.....	90,862	81,713	.....	.....	.....	22,234	.....	17,685	9,034	.....	.....	5,104
32d ..	.....	.....	81,977	57,128	.....	.....	.....	112,118	.....	5,377	4,726	.....	.....	19,017
33d ..	.....	.....	28,401	32,560	.....	.....	.....	17,285	.....	5,642	4,806	.....	.....	3,970
34th ..	.....	.....	141,697	80,651	.....	.....	.....	70,485	.....	24,821	3,589	.....	.....	7,035
Total	17,039	132,020	2,415,547	1,835,341	142,918	9,479	261	1,199,578	15,947	328,352	1,985	3,338	103,039	885
											191,864			190,412



Length and Interior Diameter of Sewers in Place December 31, 1895, in the Different Wards of the City—Continued.

Wards.	4½ Feet.	4¾ Feet.	5 Feet.	5½ Feet.	6 Feet.	6¾ Feet.	7 Feet.	7½ Feet.	8 Feet.	8¾ Feet.	9 Feet.	9½ Feet.	10 Feet.	10½ Feet.	Total.
1st.	.....	.....	247	.....	1,480	.....	.....	.....	.....	.....	.....	.....	.....	.....	121,262
2d.	.....	.....	4,255	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	96,110
3d.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	86,265
4th.	.....	1,261	1,058	.....	704	.....	.....	.....	.....	.....	.....	.....	.....	.....	124,946
5th.	.....	2,600	1,360	.....	1,680	.....	.....	.....	.....	.....	.....	.....	.....	.....	131,415
6th.	.....	3,532	8,018	.....	3,112	2,132	.....	667	.....	.....	.....	.....	.....	.....	235,218
7th.	.....	280	5,750	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	79,273
8th.	.....	3,955	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	75,775
9th.	.....	3,675	.....	2,651	.....	.....	.....	.....	.....	.....	1,635	.....	.....	.....	94,884
10th.	.....	6,114	.....	1,463	8,308	1,380	1,462	.....	5,161	.....	11,636	.....	.....	.....	411,051
11th.	.....	18,440	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	116,594
12th.	.....	4,075	.....	2,656	1,582	.....	1,982	.....	.....	.....	.....	.....	.....	.....	383,196
13th.	.....	1,995	3,809	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	383,196
14th.	.....	7,030	11,194	1,370	518	.....	2,702	3,972	1,320	.....	.....	.....	.....	.....	276,287
15th.	.....	.....	6,823	3,994	7,358	.....	2,125	6,630	3,952	.....	5,865	.....	.....	.....	355,513
16th.	.....	.....	5,210	.....	1,404	.....	.....	.....	.....	.....	.....	.....	.....	.....	70,046
17th.	.....	6,940	6,817	.....	1,306	.....	.....	.....	.....	.....	.....	.....	.....	.....	82,340
18th.	.....	4,011	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	79,160
19th.	.....	10,130	10,775	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	109,558
20th.	.....	2,220	9,305	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	99,787
21st.	.....	2,843	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	90,768
22d.	.....	655	2,765	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	73,780
23d.	.....	.....	5,582	.....	753	.....	.....	.....	.....	.....	.....	.....	.....	.....	76,001
24th.	.....	2,615	5,537	.....	3,301	.....	.....	.....	.....	.....	.....	.....	.....	.....	105,540
25th.	.....	1,335	2,855	2,150	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	409,966
26th.	.....	2,648	11,555	2,362	6,660	.....	.....	.....	.....	.....	.....	.....	.....	.....	349,799
27th.	.....	5,880	3,530	5,113	9,743	2,660	6,507	.....	.....	.....	.....	.....	.....	.....	232,166
28th.	.....	1,350	1,458	.....	1,592	.....	1,984	.....	2,669	.....	3,634	.....	.....	.....	256,720
29th.	.....	2,650	7,070	.....	4,730	.....	5,290	667	.....	.....	4,715	.....	.....	.....	139,808
30th.	.....	7,812	3,984	.....	2,635	3,965	4,010	.....	5,339	5,300	.....	.....	.....	.....	412,671
31st.	.....	4,116	15,847	3,975	6,552	3,942	4,005	.....	.....	.....	.....	.....	.....	.....	336,371
32d.	.....	2,200	1,950	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	299,107
33d.	.....	2,358	1,676	1,488	9,410	3,936	.....	.....	.....	.....	.....	.....	.....	.....	116,796
34th.	.....	5,299	8,615	8,414	4,734	1,325	2,656	.....	.....	.....	2,005	4,650	5,300	5,285	427,665
Total ..	118,019	3,933	143,426	38,230	77,583	19,340	32,724	11,936	18,441	5,300	20,480	4,650	5,300	5,285	6,591,762

SEWERS CONSTRUCTED DURING THE YEAR 1895 IN THE  
WEST DIVISION.

STREET	FROM	TO	Diam. in feet	Length in feet
Adams .....	W. Fortieth .....	Jan Huss .....	1½	655
Adams .....	Jan Huss .....	Hamlin avenue .....	1	439
Avers avenue .....	Fourteenth .....	300 ft. S. of Fifteenth .....	1	1,000
Avers avenue .....	North avenue .....	Prince avenue .....	1½	605
Avers avenue .....	Division .....	Prince avenue .....	1	1,988
Avondale avenue .....	Francisco .....	Northwest .....	1	128
Avondale avenue .....	Mozart .....	Northwest .....	1	130
Carroll avenue .....	Francisco .....	Sacramento .....	1	605
Carroll avenue .....	St. Louis .....	East .....	1	317
S. of Central Park blvd.	Homan avenue .....	Trumbull avenue .....	1½	325
Clarkson court .....	Lake .....	Walnut .....	1	420
Colorado avenue .....	Hamlin avenue .....	Jan Huss .....	1	700
Columbia avenue .....	North avenue .....	Waubansia avenue .....	1½	668
Columbia avenue .....	Waubansia avenue .....	Bloomington road .....	1	636
Columbia avenue .....	Armitage avenue .....	Courtland avenue .....	1½	669
Columbia avenue .....	Courtland avenue .....	Bloomington road .....	1	595
Congress .....	Central Park avenue .....	Alley E. of St. Louis avenue .....	1½	892
Congress .....	W. Fortieth .....	Jan Huss .....	1½	655
Congress .....	Jan Huss .....	Hamlin avenue .....	1	439
Cromwell .....	Fullerton avenue .....	Berlin .....	1½	299
Cromwell .....	Berlin .....	Rhine .....	1	339
Cromwell .....	Rhine .....	Milwaukee avenue .....	1½	381
Eighteenth .....	Western avenue .....	West .....	1½	570
Fairfield avenue .....	Armitage avenue .....	Courtland avenue .....	1	510
Flournoy .....	Kedzie avenue .....	Albany avenue .....	1	623
Flournoy .....	Kedzie avenue .....	Spaulding avenue .....	1½	667
Flournoy .....	Central Park avenue .....	St. Louis avenue .....	1½	670
Flournoy .....	Spaulding avenue .....	St. Louis avenue .....	1	1,344
Fourteenth .....	W. Fortieth .....	Jan Huss .....	2	668
Fourteenth .....	Jan Huss .....	Hamlin avenue .....	1½	610
Forty-fifth avenue .....	Irving Park avenue .....	Prescott avenue .....	1½	659
Forty-fifth avenue .....	Prescott .....	North .....	1	668
Francisco avenue .....	Diversey avenue .....	George .....	1½	658
Francisco avenue .....	George .....	Avondale avenue .....	1	530
Gladys .....	W. Fortieth .....	Jan Huss .....	1½	655
Gladys .....	Jan Huss .....	Hamlin avenue .....	1	439
Hamlin avenue .....	Madison .....	Colorado avenue .....	1	2,195
Hamlin avenue .....	Fourteenth .....	300 ft. S. of Fifteenth .....	1	1,042
Hamlin avenue .....	North avenue .....	Prince avenue .....	1½	606
Hamlin avenue .....	Division .....	Prince avenue .....	1	1,966
Harding avenue .....	Grand avenue .....	Frederick .....	1½	236
Harding avenue .....	North avenue .....	Prince avenue .....	1½	603
Harding avenue .....	Frederick .....	Prince avenue .....	1	662
Harding avenue .....	Grand avenue .....	Dorr place .....	1½	488
Harding avenue .....	Division .....	Dorr place .....	1	652
Harding avenue .....	Fourteenth .....	Sixteenth .....	1	1,265
E. S. of Holstein Park .....	Hamburg .....	Ems .....	1	460
W. S. of Holstein Park .....	Hamburg .....	Ems .....	1	463
Humboldt .....	Diversey avenue .....	George .....	1½	658
Humboldt .....	George .....	Wellington avenue .....	1	670
Huron .....	Rockwell .....	Campbell avenue .....	1	675
Jackson .....	W. Fortieth .....	Jan Huss .....	1½	655
Jackson .....	Jan Huss .....	Hamlin avenue .....	1	439
Jan Huss .....	Fourteenth .....	300 ft. S. of Fifteenth .....	1	1,000



## WEST DIVISION—CONTINUED.

STREET	FROM	TO	Diam. in feet	Length in feet
Monroe .....	W. Fortieth .....	Jan Huss .....	1½	655
Monroe .....	Jan Huss .....	Hamlin avenue .....	1	439
Mozart .....	Diversey avenue .....	George .....	1½	658
Mozart .....	George .....	Avondale avenue .....	1	274
S. S. Ogden avenue .....	Hamlin avenue .....	Southwest .....	1	621
Park avenue .....	Kedzie avenue .....	East .....	1	207
Rhine .....	Milwaukee avenue .....	Myrtle avenue .....	1	922
Rockwell .....	Grand avenue .....	Huron .....	1	560
Sacramento .....	Twenty-second .....	Twenty-third .....	1½	663
Sawyer avenue .....	Ohio .....	South .....	1	388
Sixteenth .....	W. Fortieth .....	Jan Huss .....	1½	668
Spaulding avenue .....	Fullerton avenue .....	Wrightwood avenue ..	1½	1,332
Spaulding avenue .....	Monroe .....	South .....	1	106
Springfield avenue .....	Division .....	Prince avenue .....	1	1,988
Springfield avenue .....	North avenue .....	Prince avenue .....	1½	604
Taylor .....	Campbell avenue .....	West .....	1½	629
Throop .....	Van Buren .....	Harrison .....	3	824
Tripp avenue .....	Humboldt avenue .....	Belden avenue .....	1½	669
Trumbull avenue .....	Central Park blvd .....	Governor's Parkway ..	1	617
Trumbull avenue .....	Twenty-sixth .....	Twenty-seventh .....	1	667
Trumbull avenue .....	Ohio .....	Alley E. of Central Park blvd ..	1	392
Twentieth .....	Rockwell .....	East .....	1	587
Twentieth .....	Western avenue .....	West .....	1	458
Van Buren .....	W. Fortieth .....	Jan Huss .....	1½	655
Van Buren .....	Jan Huss .....	Hamlin avenue .....	1	653
Washington .....	Albany avenue .....	West .....	1	400
Weage avenue .....	Kedzie avenue .....	Sheridan avenue .....	1	630
Wilcox avenue .....	W. Fortieth .....	Jan Huss .....	1½	655
Wilcox avenue .....	Jan Huss .....	Hamlin avenue .....	1	653
Total .....				55,410

SEWERS CONSTRUCTED DURING THE YEAR 1895 IN THE  
SOUTH DIVISION.

STREET	FROM	TO	Diam. in feet	Length in feet
Alley E. of Cottage Grove avenue	Forty-fifth	South	1	229
Alley E. of Grand blvd.	Forty-eighth	Forty-ninth	1	333
Alley W. of Grand blvd.	Forty-fifth	Forty-sixth	1	629
Alley E. of Michigan av.	Thirty-ninth	Fortieth	$\frac{3}{4}$	641
Aberdeen	Sixty-seventh	Sixty-ninth	$1\frac{1}{2}$	1,321
Bishop	Sixty-third	Sixty-fifth	1	1,326
Bishop	Sixty-fifth	Sixty-sixth	$1\frac{1}{2}$	660
Bishop	Sixty-sixth	Sixty-seventh	1	675
Bonaparte	Fake	East	1	245
Burtis	Forty-seventh	Fifty-first	$1\frac{1}{2}$	2,413
Center avenue	Sixty-third	Sixty-fourth	1	659
Center avenue	Sixty-fourth	Sixty-fifth	$1\frac{1}{2}$	665
Center avenue	Sixty-fifth	Sixty-sixth	$1\frac{1}{2}$	668
Center avenue	Sixty-sixth	Sixty-seventh	1	663
Center avenue	Sixty-seventh	Sixty-eighth	$1\frac{1}{2}$	663
Center avenue	Sixty-eighth	Sixty-ninth	1	665
Center avenue	Sixty-ninth	Seventieth	$1\frac{1}{2}$	663
Champlain	Thirty-third	North	$1\frac{1}{2}$	546
Cregier avenue	Sixty-ninth	Seventieth	$1\frac{1}{2}$	658
Dearborn	Fifty-ninth	North	1	389
Elias	Archer avenue	Lyman	1	825
Emerald avenue	Sixty-fourth	South	1	466
Escanaba avenue	Eighty-eighth	Ninetieth	$1\frac{1}{2}$	1,314
Escanaba avenue	Eighty-eighth	Eighty-seventh	1	648
Escanaba avenue	Ninetieth	Ninety-first	1	647
Fake	Bonaparte	South	1	154
Fiftieth	Princeton avenue	Shields avenue	$1\frac{1}{2}$	310
Fiftieth	Hoyne avenue	Leavitt	1	775
Fiftieth court	Hoyne avenue	Leavitt	1	617
Fifty-fourth place	Elias avenue	Greenwood avenue	1	386
Fifty-sixth	South Park avenue	Calumet avenue	$1\frac{1}{2}$	440
Fifty-sixth	Calumet avenue	150 ft. E. of Indiana av.	1	690
Fifth avenue	119th	121st	1	1,129
Forty-sixth	Wentworth avenue	Princeton avenue	$1\frac{1}{2}$	685
Forty-sixth	Princeton avenue	Stewart avenue	1	615
Forty-seventh	Robey	Leavitt	2	1,278
Forty-seventh court	Hoyne avenue	Leavitt	1	612
Forty-eighth	Alley E. of Hoyne av.	Leavitt	1	774
Forty-eighth court	Hoyne avenue	Leavitt	1	613
Forty-ninth	Hoyne avenue	Leavitt	1	615
Forty-ninth court	Hoyne avenue	Leavitt	1	619
Ford	Wallace	375 ft. E. of Wright	1	1,100
Goodspeed	Fifty-first	Fiftieth	$1\frac{1}{2}$	655
Goodspeed	Fifty-first	Grand Trunk R. R.	1	535
Graylock avenue	Princeton avenue	Shields avenue	$1\frac{1}{2}$	351
Green	Sixty-sixth	Sixty-seventh	$1\frac{1}{2}$	663
Green	Seventy-third	Seventy-second	1	663
Hoyne avenue	Forty-seventh	Fifty-first	$1\frac{1}{2}$	2,511
Hope avenue	Sixty-second	Sixty-third	1	792
Jeffery avenue	Seventy-third	Seventy-fourth	$1\frac{1}{2}$	661
Jeffery avenue	Seventy-fourth	Seventy-fifth	1	657
Justine	Sixty-third	Sixty-fifth	1	1,328
Justine	Sixty-fifth	Sixty-sixth	$1\frac{1}{2}$	660
Justine	Sixty-sixth	Sixty-seventh	1	667



## SOUTH DIVISION—CONTINUED.

STREET	FROM	TO	Diam. in feet	Length in feet
Lafin .....	Sixty-third .....	Sixty-fifth .....	1	1,330
Lafin .....	Sixty-fifth .....	Sixty-sixth .....	1½	656
Lafin .....	Sixty-sixth .....	Sixty-seventh .....	1	675
La Salle .....	Sixty-first .....	South .....	1	995
Leavitt .....	Thirty-third .....	Bross avenue .....	1½	620
Lincoln .....	Fifty-first .....	Fiftieth .....	1½	657
Lincoln .....	Fiftieth .....	Grand Trunk R. R. ..	1	535
Loomis .....	Sixty-third .....	Sixty-fifth .....	1	1,326
Loomis .....	Sixty-fifth .....	Sixty-sixth .....	1½	660
Loomis .....	Sixty-sixth .....	Sixty-seventh .....	1	675
Ninety-third .....	Superior avenue .....	West .....	1	291
Ninety-third .....	Huston avenue .....	Ontario avenue .....	1	632
103d .....	Charles avenue .....	Prospect avenue .....	3½	940
103d .....	Prospect avenue .....	Meridian avenue .....	3	1,938
103d .....	Meridian avenue .....	Washington avenue ..	2½	415
103d .....	Washington avenue ..	Belmont avenue .....	1½	647
103d .....	Belmont avenue .....	Highland avenue .....	2	1,026
Paulina .....	Fifty-first .....	Grand Trunk R. R. ..	1	1,156
Paulina .....	Fifty-fourth .....	South .....	1½	493
Peoria .....	Sixty-seventh .....	Sixty-sixth .....	1½	660
Portland avenue .....	119th .....	121st .....	1	1,124
Prairie avenue .....	Sixty-seventh .....	Sixty-ninth .....	2	1,330
E. S. of Railroad av. ..	Seventy-third .....	Seventy-third place ..	1	433
Sangamon .....	Seventy-first .....	Seventy-fourth .....	1	1,985
Seventh avenue .....	100th .....	Ninety-ninth .....	2	700
Seventh avenue .....	Ninety-ninth .....	Ninety-eighth .....	1½	701
Seventh avenue .....	Ninety-eighth .....	Ninety-seventh .....	1	662
Seventh third place .....	Railroad avenue .....	East .....	1	217
Shields avenue .....	Graylock avenue .....	Alley N. of Forty-ninth ..	1	1,377
Sixty-third place .....	Maryland avenue .....	East .....	1	297
Sixty-fifth .....	Ashland avenue .....	Loomis .....	2	1,360
Sixty-seventh .....	Ashland avenue .....	Loomis .....	1	1,328
Sixty-seventh .....	Madison avenue .....	Hope avenue .....	2½	674
Sixty-seventh .....	Hope .....	East .....	1½	511
State .....	Sixty-ninth .....	Seventy-fifth .....	2	3,960
State .....	Sixty-ninth .....	Sixty-eighth .....	1	620
W. S. of Stony Island av. ..	Seventy-third .....	Seventy-fifth .....	1½	1,000
Superior avenue .....	Ninety-second .....	Ninety-third .....	1½	660
Thirty-eighth court .....	Halsted .....	Laurel .....	1	1,285
Thirty-third court .....	Paulina .....	East .....	1	382
Wall .....	298 ft. S. of Springer ..	South .....	1½	417
Wall .....	714 ft. S. of Springer ..	South .....	1	418
Washington avenue .....	103d .....	105th .....	2	1,348
Washington avenue .....	105th .....	107th .....	1½	1,337
Washington avenue .....	103d .....	101st .....	1½	1,371
Wentworth avenue .....	113th .....	South .....	10	100
Wentworth avenue .....	113th .....	106th .....	9½	4,650
Wentworth avenue .....	106th .....	103d .....	9	2,005
Winchester avenue .....	Fifty-first .....	Fiftieth .....	1½	658
Winchester avenue .....	Fiftieth .....	Grand Trunk R. R. ..	1	536
Wood .....	Fifty-second .....	Grand Trunk R. R. ..	1	1,877
Total .....				91,816

SEWERS CONSTRUCTED DURING THE YEAR 1895 IN THE  
SOUTH DIVISION.

STREET	FROM	TO	Diam. in feet	Length in feet
Alley E. of Cottage Grove avenue	Forty-fifth .....	South .....	1	229
Alley E. of Grand blvd.	Forty-eighth .....	Forty-ninth .....	1	333
Alley W. of Grand blvd.	Forty-fifth .....	Forty-sixth .....	1	629
Alley E. of Michigan av.	Thirty-ninth .....	Fortieth .....	$\frac{1}{2}$	641
Aberdeen .....	Sixty-seventh .....	Sixty-ninth .....	$1\frac{1}{2}$	1,321
Bishop .....	Sixty-third .....	Sixty-fifth .....	1	1,326
Bishop .....	Sixty-fifth .....	Sixty-sixth .....	$1\frac{1}{2}$	660
Bishop .....	Sixty-sixth .....	Sixty-seventh .....	1	675
Bonaparte .....	Fake .....	East .....	1	245
Burtis .....	Forty-seventh .....	Fifty-first .....	$1\frac{1}{2}$	2,413
Center avenue .....	Sixty-third .....	Sixty-fourth .....	1	659
Center avenue .....	Sixty-fourth .....	Sixty-fifth .....	$1\frac{1}{2}$	665
Center avenue .....	Sixty-fifth .....	Sixty-sixth .....	$1\frac{1}{2}$	668
Center avenue .....	Sixty-sixth .....	Sixty-seventh .....	1	663
Center avenue .....	Sixty-seventh .....	Sixty-eighth .....	$1\frac{1}{2}$	663
Center avenue .....	Sixty-eighth .....	Sixty-ninth .....	1	665
Center avenue .....	Sixty-ninth .....	Seventieth .....	$1\frac{1}{2}$	663
Champlain .....	Thirty-third .....	North .....	$1\frac{1}{2}$	546
Cregier avenue .....	Sixty-ninth .....	Seventieth .....	$1\frac{1}{2}$	658
Dearborn .....	Fifty-ninth .....	North .....	1	389
Elias .....	Archer avenue .....	Lyman .....	1	825
Emerald avenue .....	Sixty-fourth .....	South .....	1	466
Escanaba avenue .....	Eighty-eighth .....	Ninetieth .....	$1\frac{1}{2}$	1,314
Escanaba avenue .....	Eighty-eighth .....	Eighty-seventh .....	1	648
Escanaba avenue .....	Ninetieth .....	Ninety-first .....	1	647
Fake .....	Bonaparte .....	South .....	1	154
Fiftieth .....	Princeton avenue .....	Shields avenue .....	$1\frac{1}{2}$	310
Fiftieth .....	Hoyne avenue .....	Leavitt .....	1	775
Fiftieth court .....	Hoyne avenue .....	Leavitt .....	1	617
Fifty-fourth place .....	Elias avenue .....	Greenwood avenue .....	1	386
Fifty-sixth .....	South Park avenue .....	Calumet avenue .....	$1\frac{1}{2}$	440
Fifty-sixth .....	Calumet avenue .....	150 ft. E. of Indiana av. .....	1	690
Fifth avenue .....	119th .....	121st .....	1	1,129
Forty-sixth .....	Wentworth avenue .....	Princeton avenue .....	$1\frac{1}{2}$	685
Forty-sixth .....	Princeton avenue .....	Stewart avenue .....	1	615
Forty-seventh .....	Robey .....	Leavitt .....	2	1,278
Forty-seventh court .....	Hoyne avenue .....	Leavitt .....	1	612
Forty-eighth .....	Alley E. of Hoyne av. .....	Leavitt .....	1	774
Forty-eighth court .....	Hoyne avenue .....	Leavitt .....	1	613
Forty-ninth .....	Hoyne avenue .....	Leavitt .....	1	615
Forty-ninth court .....	Hoyne avenue .....	Leavitt .....	1	619
Ford .....	Wallace .....	375 ft. E. of Wright .....	1	1,100
Goodspeed .....	Fifty-first .....	Fiftieth .....	$1\frac{1}{2}$	655
Goodspeed .....	Fifty-first .....	Grand Trunk R. R. .....	1	535
Graylock avenue .....	Princeton avenue .....	Shields avenue .....	$1\frac{1}{2}$	351
Green .....	Sixty-sixth .....	Sixty-seventh .....	$1\frac{1}{2}$	663
Green .....	Seventy-third .....	Seventy-second .....	1	663
Hoyne avenue .....	Forty-seventh .....	Fifty-first .....	$1\frac{1}{2}$	2,511
Hope avenue .....	Sixty-second .....	Sixty-third .....	1	792
Jeffery avenue .....	Seventy-third .....	Seventy-fourth .....	$1\frac{1}{2}$	661
Jeffery avenue .....	Seventy-fourth .....	Seventy-fifth .....	1	657
Justine .....	Sixty-third .....	Sixty-fifth .....	1	1,328
Justine .....	Sixty-fifth .....	Sixty-sixth .....	$1\frac{1}{2}$	660
Justine .....	Sixty-sixth .....	Sixty-seventh .....	1	667



## SOUTH DIVISION—CONTINUED.

STREET	FROM	TO	Diam. in feet	Length in feet
Lafin .....	Sixty-third .....	Sixty-fifth .....	1	1,330
Lafin .....	Sixty-fifth .....	Sixty-sixth .....	1½	656
Lafin .....	Sixty-sixth .....	Sixty-seventh .....	1	675
La Salle .....	Sixty-first .....	South .....	1	995
Leavitt .....	Thirty-third .....	Bross avenue .....	1½	620
Lincoln .....	Fifty-first .....	Fiftieth .....	1½	657
Lincoln .....	Fiftieth .....	Grand Trunk R. R. .	1	535
Loomis .....	Sixty-third .....	Sixty-fifth .....	1	1,326
Loomis .....	Sixty-fifth .....	Sixty-sixth .....	1½	660
Loomis .....	Sixty-sixth .....	Sixty-seventh .....	1	675
Ninety-third .....	Superior avenue .....	West .....	1	291
Ninety-third .....	Huston avenue .....	Ontario avenue .....	1	632
103d .....	Charles avenue .....	Prospect avenue .....	3½	940
103d .....	Prospect avenue .....	Meridian avenue .....	3	1,938
103d .....	Meridian avenue .....	Washington avenue .....	2½	415
103d .....	Washington avenue .....	Belmont avenue .....	1½	647
103d .....	Belmont avenue .....	Highland avenue .....	2	1,026
Paulina .....	Fifty-first .....	Grand Trunk R. R. .	1	1,156
Paulina .....	Fifty-fourth .....	South .....	1½	493
Peoria .....	Sixty-seventh .....	Sixty-sixth .....	1½	660
Portland avenue .....	119th .....	121st .....	1	1,124
Prairie avenue .....	Sixty-seventh .....	Sixty-ninth .....	2	1,330
E. S. of Railroad av. .	Seventy-third .....	Seventy-third place ..	1	433
Sangamon .....	Seventy-first .....	Seventy-fourth .....	1	1,985
Seventh avenue .....	100th .....	Ninety-ninth .....	2	700
Seventh avenue .....	Ninety-ninth .....	Ninety-eighth .....	1½	701
Seventh avenue .....	Ninety-eighth .....	Ninety-seventh .....	1	662
Seventh third place ..	Railroad avenue .....	East .....	1	217
Shields avenue .....	Graylock avenue .....	Alley N. of Forty-ninth ..	1	1,377
Sixty-third place .....	Maryland avenue .....	East .....	1	297
Sixty-fifth .....	Ashland avenue .....	Loomis .....	2	1,360
Sixty-seventh .....	Ashland avenue .....	Loomis .....	1	1,328
Sixty-seventh .....	Madison avenue .....	Hope avenue .....	2½	674
Sixty-seventh .....	Hope .....	East .....	1½	511
State .....	Sixty-ninth .....	Seventy-fifth .....	2	3,960
State .....	Sixty-ninth .....	Sixty-eighth .....	1	620
W. S. of Stony Island av.	Seventy-third .....	Seventy-fifth .....	1½	1,000
Superior avenue .....	Ninety-second .....	Ninety-third .....	1½	660
Thirty-eighth court ..	Halsted .....	Laurel .....	1	1,285
Thirty-third court .....	Paulina .....	East .....	1	382
Wall .....	298 ft. S. of Springer ..	South .....	1½	417
Wall .....	714 ft. S. of Springer ..	South .....	1	418
Washington avenue .....	103d .....	105th .....	2	1,348
Washington avenue .....	105th .....	107th .....	1½	1,337
Washington avenue .....	103d .....	101st .....	1½	1,371
Wentworth avenue .....	113th .....	South .....	10	100
Wentworth avenue .....	113th .....	106th .....	9½	4,650
Wentworth avenue .....	106th .....	103d .....	9	2,005
Winchester avenue .....	Fifty-first .....	Fiftieth .....	1½	658
Winchester avenue .....	Fiftieth .....	Grand Trunk R. R. .	1	536
Wood .....	Fifty-second .....	Grand Trunk R. R. .	1	1,877
Total .....				91,816

SEWERS CONSTRUCTED DURING THE YEAR 1895 IN THE  
SOUTH DIVISION.

STREET	FROM	TO	Diam. in feet	Le
Alley E. of Cottage Grove avenue	Forty-fifth	South	1	
Alley E. of Grand blvd.	Forty-eighth	Forty-ninth	1	
Alley W. of Grand blvd.	Forty-fifth	Forty-sixth	1	
Alley E. of Michigan av.	Thirty-ninth	Fortieth	$\frac{1}{2}$	
Aberdeen	Sixty-seventh	Sixty-ninth	$1\frac{1}{2}$	
Bishop	Sixty-third	Sixty-fifth	1	
Bishop	Sixty-fifth	Sixty-sixth	$1\frac{1}{2}$	
Bishop	Sixty-sixth	Sixty-seventh	1	
Bonaparte	Fake	East	1	
Burtis	Forty-seventh	Fifty-first	$1\frac{1}{2}$	
Center avenue	Sixty-third	Sixty-fourth	1	
Center avenue	Sixty-fourth	Sixty-fifth	$1\frac{1}{2}$	
Center avenue	Sixty-fifth	Sixty-sixth	$1\frac{1}{2}$	
Center avenue	Sixty-sixth	Sixty-seventh	1	
Center avenue	Sixty-seventh	Sixty-eighth	$1\frac{1}{2}$	
Center avenue	Sixty-eighth	Sixty-ninth	1	
Center avenue	Sixty-ninth	Seventieth	$1\frac{1}{2}$	
Champlain	Thirty-third	North	$1\frac{1}{2}$	
Cregier avenue	Sixty-ninth	Seventieth	$1\frac{1}{2}$	
Dearborn	Fifty-ninth	North	1	
Elias	Archer avenue	Lyman	1	
Emerald avenue	Sixty-fourth	South	1	
Escanaba avenue	Eighty-eighth	Ninetieth	$1\frac{1}{2}$	
Escanaba avenue	Eighty-eighth	Eighty-seventh	1	
Escanaba avenue	Ninetieth	Ninety-first	1	
Fake	Bonaparte	South	1	
Fiftieth	Princeton avenue	Shields avenue	$1\frac{1}{2}$	
Fiftieth	Hoyne avenue	Leavitt	1	
Fiftieth court	Hoyne avenue	Leavitt	1	
Fifty-fourth place	Elias avenue	Greenwood avenue	1	
Fifty-sixth	South Park avenue	Calumet avenue	$1\frac{1}{2}$	
Fifty-sixth	Calumet avenue	150 ft. E. of Indiana av.	1	
Fifth avenue	119th	121st	1	
Forty-sixth	Wentworth avenue	Princeton avenue	$1\frac{1}{2}$	
Forty-sixth	Princeton avenue	Stewart avenue	1	
Forty-seventh	Robey	Leavitt	2	
Forty-seventh court	Hoyne avenue	Leavitt	1	
Forty-eighth	Alley E. of Hoyne av.	Leavitt	1	
Forty-eighth court	Hoyne avenue	Leavitt	1	
Forty-ninth	Hoyne avenue	Leavitt	1	
Forty-ninth court	Hoyne avenue	Leavitt	1	
Ford	Wallace	375 ft. E. of Wright	1	
Goodspeed	Fifty-first	Fiftieth	$1\frac{1}{2}$	
Goodspeed	Fifty-first	Grand Trunk R. R.	1	
Graylock avenue	Princeton avenue	Shields avenue	$1\frac{1}{2}$	
Green	Sixty-sixth	Sixty-seventh	$1\frac{1}{2}$	
Green	Seventy-third	Seventy-second	1	
Hoyne avenue	Forty-seventh	Fifty-first	$1\frac{1}{2}$	
Hope avenue	Sixty-second	Sixty-third	1	
Jeffery avenue	Seventy-third	Seventy-fourth	$1\frac{1}{2}$	
Jeffery avenue	Seventy-fourth	Seventy-fifth	1	
Justine	Sixty-third	Sixty-fifth	1	
Justine	Sixty-fifth	Sixty-sixth	$1\frac{1}{2}$	
Justine	Sixty-sixth	Sixty-seventh	1	



## NORTH DIVISION—CONTINUED.

STREET	FROM	TO	Diam. in feet	Length in feet
Windswood Park..	Wellington .....	Oakdale avenue.....	1	333
avenue.....	Charlton.....	Wayne avenue .....	1½	655
avenue.....	Wayne avenue .....	Southport avenue .....	1	602
.....	George .....	Nelson .....	2	995
.....	Webster avenue .....	Grant place.....	1½	983
.....	Grant place.....	Lawrence avenue.....	1	628
.....	Leavitt.....	W. of Hoyne avenue..	1	494
.....	Robey .....	E. of Hoyne avenue ..	1	455
avenue.....	Addison avenue .....	Cornelia .....	1	638
avenue.....	Grace .....	S. of Irving Park av..	1	1,138
Water.....	St. Clair.....	East .....	2	687
Water.....	687 ft. E. of St. Clair.	East .....	1½	875
ton avenue .....	Robey .....	Walcott .....	1½	654
ton avenue .....	Walcott .....	W. Ravenswood Park.	1	448
avenue .....	Montrose boulevard ..	Berteau avenue.....	2½	1,335
avenue .....	Berteau .....	Irving Park avenue ...	2	1,336
op place.....	Rosemont avenue ...	Devon avenue.....	1	656
.....	Robey .....	Walcott .....	1½	657
.....	Walcott .....	East .....	1	324
Total .....				47,765

SEWERS CONSTRUCTED DURING THE YEAR 1895 IN THE  
NORTH DIVISION.

STREET	FROM	TO	Diam. in feet	Length in feet
Albion avenue .....	Winthrop avenue .....	W. S. Evanston av ...	1½	1,170
Albion avenue .....	Winthrop avenue .....	East .....	1	385
Broadock avenue .....	Ormonde avenue .....	Emerson avenue .....	1	209
Buena avenue .....	Halsted .....	Lake Michigan .....	1	405
Carpenter road .....	Chicago river .....	Crescent road .....	2½	202
Carpenter road .....	Crescent road .....	S. of Ormonde avenue ..	1½	433
Carpenter road .....	S. of Ormonde avenue ..	Ormonde avenue .....	2	232
Claremont avenue .....	Cosgrove avenue .....	South .....	1	272
Columbia avenue .....	Evanston avenue .....	Webber avenue .....	1½	746
Columbia avenue .....	Evanston avenue .....	East .....	1	850
Columbia avenue .....	Webber avenue .....	Railroad avenue .....	1	400
Cornelia .....	Halsted .....	Rokeby .....	1½	625
Cornelia .....	Rokeby .....	Sheffield avenue ..	1	604
Cosgrove avenue .....	Western avenue .....	Leavitt .....	1½	1,317
Cosgrove avenue .....	Leavitt .....	East .....	1	213
Crescent road .....	Enfield avenue .....	Fountain avenue .....	2	437
Crescent road .....	Fountain avenue .....	Grassmere road .....	1½	694
Ellerton avenue .....	Dixon avenue .....	Fountain avenue .....	1	689
Enfield avenue .....	Prescott avenue .....	Ellerton avenue .....	1½	683
Evanston avenue .....	Columbia avenue .....	Albion avenue .....	1½	742
Evanston avenue .....	Columbia avenue .....	Pratt avenue .....	1	281
Evanston avenue .....	Albion avenue .....	Hayes avenue .....	1	343
N. Fifty-ninth, now Foster av.	Lincoln avenue .....	542 ft. N. of W. line of Lincoln av.	1½	539
George .....	Robey .....	Walcott avenue .....	1½	656
George .....	Walcott .....	East .....	1	327
Grace .....	Robey .....	Hoyne avenue .....	2	658
Grace .....	Hoyne avenue .....	Mara avenue .....	1½	335
Hoyne avenue .....	Grace .....	S. of Irving Park av ..	1	1,136
Irving Park avenue .....	Cosgrove avenue .....	South .....	1	272
Irving Park boulevard ..	Western avenue .....	Irving Park avenue ..	2	981
Irving Park boulevard ..	Irving Park avenue ..	Leavitt .....	1½	330
Irving Park boulevard ..	River .....	Western avenue .....	2½	1,588
Kenmore avenue .....	Rosemont avenue .....	Devon avenue .....	1	660
Leavitt .....	Cosgrove avenue .....	Montrose boulevard ..	1	575
Leavitt .....	Irving Park avenue ..	Byron .....	1	667
Mara avenue .....	Grace .....	S. of Irving Park av ..	1	1,137
Nellie avenue .....	Robey .....	W. of Lincoln avenue ..	1	863
Nelson .....	Ashland avenue .....	Paulina .....	1½	660
Nelson .....	Paulina .....	Wood .....	1	654
North Shore avenue .....	Lake Michigan avenue ..	Evanston avenue .....	2	965
North Shore avenue .....	Evanston avenue .....	Webber avenue .....	1½	748
North Shore avenue .....	Webber avenue .....	Railroad avenue .....	1	191
Oakdale avenue .....	Robey .....	Walcott .....	1½	658
Oakdale avenue .....	Walcott .....	C. & N.-W. Ry .....	1	574
Oakley avenue .....	Webster avenue .....	Washington avenue ..	1½	686
Oakley avenue .....	Washington avenue ..	S. of Foster avenue ..	1	196
Oakley avenue .....	Cosgrove avenue .....	South .....	1	275
Ormonde avenue .....	Carpenter road .....	Broadock avenue .....	1	433
Patterson avenue .....	Robey .....	W. of Lincoln avenue ..	1	965
Paulina .....	Diversey avenue .....	South .....	1	853
Prescott avenue .....	Carpenter road .....	Enfield avenue .....	2	746
E. Ravenswood Park ..	Addison avenue .....	Waveland avenue .....	1½	658
E. Ravenswood Park ..	Waveland avenue .....	Byron .....	1	1,344
E. Ravenswood Park ..	Byron .....	Irving Park avenue ..	1½	610



## NORTH DIVISION—CONTINUED.

STREET	FROM	TO	Diam. in feet	Length in feet
W. Ravenswood Park ..	Wellington .....	Oakdale avenue.....	1	333
Ridge avenue.....	Charlton.....	Wayne avenue .....	1½	655
Ridge avenue.....	Wayne avenue .....	Southport avenue .....	1	602
Robey.....	George .....	Nelson .....	2	995
Robey.....	Webster avenue .....	Grant place.....	1½	983
Robey.....	Grant place.....	Lawrence avenue.....	1	628
School .....	Leavitt .....	W. of Hoyne avenue..	1	494
School .....	Robey .....	E. of Hoyne avenue ..	1	455
Seeley avenue.....	Addison avenue .....	Cornelia .....	1	638
Tyson avenue.....	Grace .....	S. of Irving Park av..	1	1,188
North Water .....	St. Clair.....	East .....	2	687
North Water.....	687 ft. E. of St. Clair.	East .....	1½	875
Wellington avenue .....	Robey .....	Walcott .....	1½	654
Wellington avenue .....	Walcott .....	W. Ravenswood Park ..	1	448
Western avenue .....	Montrose boulevard ..	Berteau avenue.....	2½	1,335
Western avenue .....	Berteau .....	Irving Park avenue .....	2	1,336
Winthrop place.....	Rosemont avenue .....	Devon avenue.....	1	656
Wolfram .....	Robey .....	Walcott .....	1½	657
Wolfram .....	Walcott .....	East .....	1	324
Total .....				47,765

**WING SEWERS CONSTRUCTED DURING THE YEAR 1895 IN  
THE WEST DIVISION.**

STREET	FROM	TO	Diam. in feet	Length in feet
Franklin .....	Manhole in Wallace ..	East .....	1	38
Garden .....	Manhole in Wallace ..	East .....	1	36
Huron .....	Manhole in Hamlin ..	East .....	1	38
Hamlin .....	Manhole in N. line of Kinzie ..	N. line of Kinzie .....	1	75
Kinzie .....	Manhole in W. Fortieth ..	West .....	1	45
Mead .....	Manhole in Chicago avenue ..	North .....	1	46
Sheldon .....	Manhole in Milwaukee avenue ..	West .....	1	40
Sheridan .....	Manhole in Courtland ..	West .....	1	44
St. Louis .....	Manhole in N. line of Kinzie ..	S. line of Kinzie .....	1	110
Vernon .....	Manhole in Milwaukee avenue ..	West .....	1	40
Washington .....	Manhole in Milwaukee avenue ..	West .....	1½	40
Total .....				552

WING SEWERS CONSTRUCTED DURING THE YEAR 1895 IN  
THE SOUTH DIVISION.

STREET	FROM	TO	Diam. in feet	Length in feet
Avenue M .....	Manhole in 100th. . .	South .....	1½	88
Bonaparte .....	Manhole in Fake . . .	West .....	1½	88
Peoria .....	Manhole in Fifty-third	North .....	1½	40
Sangamon .....	Manhole in Fifty-third	North .....	1	40
Sixty-eighth .....	Manhole in Emerald av	East .....	½	176
Total .....				380



**WING SEWERS CONSTRUCTED DURING THE YEAR 1895 IN  
THE NORTH DIVISION.**

STREET	FROM	TO	Diam. in feet	Length in feet
Foster .....	Manhole in Lincoln av	West .....	1½	48
Hanson court .....	Manhole in Lincoln av	East .....	1	42
Hanson court .....	Manhole in Lincoln av	West .....	1½	38
Jackson .....	Manhole in Lincoln av	West .....	1	42
School .....	Manhole in Western av	East .....	1	38
Swift place .....	Manhole in Bryn Mawr	North .....	1½	40
Webster avenue.....	Manhole in Lincoln av	East .....	1	48
Webster avenue.....	Manhole in Lincoln av	West .....	1½	48
Wayne avenue .....	Manhole in Bryn Mawr	South .....	1½	40
Washington avenue....	Manhole in Lincoln av	West .....	1½	42
Washington avenue....	Manhole in Lincoln av	East .....	1	50
Total .....				476







RECEIPTS IN HOUSE DRAIN DEPARTMENT DURING  
THE YEAR 1895.

DIVISION.	PERMITS ISSUED.								Receipts.
	6-inch.	9-inch.	12-inch.	15-inch.	Total.	Junctions.		Special Ass'mt.	
						6-in.	9-in.		
West .....	1,985	48	8	1	2,042	23	2	120	\$ 14,452 00
North .....	1,875	18	.....	.....	1,893	24	2	44	10,707 50
South .....	2,666	57	3	1	2,727	109	12	167	9,669 25
Totals .....	6,526	123	11	2	6,662	156	16	331	\$ 34,828 75
Receipts from licenses.....									2,095 00
Receipts from special assessments, etc.....									8,105 00
Total receipts .....									\$ 45,028 75

NUMBER OF DRAINS PUT IN PLACE DURING THE YEAR 1895  
UNDER SPECIAL ASSESSMENT.

DIVISION.	Total number of drains.	Total length of drains.	Total cost.	Average cost per drain.	Average length drain in feet.	Average cost per foot in cents
West .....	924	30,070	\$ 3,545 21	\$ 3 84	32.54	11.78
North .....	474	12,903	1,734 51	3 66	27.22	13.44
South .....	223	6,203	911 10	4 09	27.28	14.69
Total.....	1,621	49,176	\$ 6,190 82	\$ 3 82	30.33	12.6

Making a total of 9.31 miles of six (6) inch drain laid by contract and paid for by special assessment.



REPORT OF THE

**Bureau of Streets**

CITY OF CHICAGO





# BUREAU OF STREETS.

---

HON. W. D. KENT,

*Commissioner of Public Works.*

DEAR SIR: I have the honor to submit herewith the Twentieth Annual Report of the Bureau of Streets for the year ending December 31, 1895.

A review of the work accomplished during the past year by the various departments of this Bureau is presented in detail; also information relative to the different railroads centering in this City, and extension of the various street railway lines operating within the corporation limits.

## FINANCIAL STATEMENT.

Amount paid contractors for street improvements by special assessments.....	\$1,026,202 45
For sidewalks built by the Bureau under special assessment .....	50,817 91
For re-paving and repairing improved streets....	267,671 89
For grading, ditching, building and repairing aprons, culverts, crossings, etc., on unimproved streets .....	143,696 39
For sidewalk general repairs, and intersections...	106,211 11
For City parks.....	9,361 96
For new and repaired street lamps and signs .....	63,397 24
GRAND TOTAL.....	<u>\$1,667,358 95</u>

## STREET AND ALLEY IMPROVEMENTS.

In addition to attending to work under construction fourteen lettings have been prepared and advertised, and contracts for forty-five alleys and 145 streets awarded; eighty-eight surveys for street and alley openings, and seventeen surveys of obstructions have been made; grades and lines have been furnished for sidewalks by an engineer detailed from this Department; and 396 preliminary estimates for new work have been made, divided as follows:

KINDS OF PAVEMENT.	Square Yards.	Lineal Feet.	Miles.	Estimated Cost.
Cedar block.....	1,742,064	483,805	91.63	\$3,206,164 90
Vitrified brick .....	323,566	87,434	16.56	741,871 65
Asphalt.....	134,803	39,635	7.50	379,233 60
Macadam.....	574,380	185,350	35.10	1,055,900 09
Granite .....	33,707	9,485	1.80	108,594 88
Total.....	2,808,520	805,709	152.59	\$5,491,765 12

Of the 47.75 miles of pavement laid during the year 59.9 per cent. has been cedar block and 12.1 per cent. macadam. By reference to the "Tables Showing Percentage of Each Class of Pavement" it will be seen that the proportion of these two classes of pavement is rapidly diminishing, being replaced by vitrified brick, granite blocks and sheet asphalt. The introduction of vitrified brick on Milwaukee avenue, from Lake street to Chicago avenue, and of sheet asphalt on Madison street, from Jefferson street to Center avenue, is a new departure which will be watched with a great deal of interest. Each of these pavements is an ideal specimen of its class and was laid in strict accord with the specifications and under the most rigid inspection. The heavy traffic on these streets will be a severe and thorough test.

The tendency towards substantial pavements has been greatly assisted by the action of the Council in ordering that all cedar block pavements be laid on a foundation of compacted crushed stone, six inches in depth, instead of the two-inch hemlock plank and three-inch sand foundation as formerly specified.

I would recommend that when a street has been ordered improved, upon which substantial sidewalks are needed, the ordinance be drawn providing for all improvements necessary between lot lines. Sidewalk elevations, which are the cause of frequent contentions, would be properly fixed, the cost of making one assessment would be saved, greater uniformity between sidewalk and street elevations would ensue, and the general appearance of the street greatly benefited.

The following tables show the progress in street and alley improvements and the character of pavement laid on each :



## ALLEYS IMPROVED IN THE

NAME	FROM	BETWEEN	Commenced
Alley .....	Webster to Garfield avs ..	Osgood and Seminary av.	June 4, 1895
Alley .....	First W. of Franklin .....	Wendell and Oak .....	May 13, 1895
Alley .....	First N. E. of Maud av. ...	Sheffield av. and Poe ....	July 9, 1895
Alley .....	Lincoln avenue. ....	Belden av. and Larrabee .	Aug. 24, 1895
Alley .....	Lincoln avenue. ....	Webster av. and Orchard.	Oct. 10, 1895
Alley .....	Larrabee to Willow .....	Howe and Center .....	Aug. 26, 1895
Alley .....	Locust to Pearson .....	Franklin and Market ....	Sept. 28, 1895
Alley .....	North av. to 475 ft. north.	Dayton and Halsted .....	Oct. 12, 1895
Alley .....	Goethe to 411 ft. north. ...	State and Dearborn .....	Oct. 1, 1895
Alley .....	Seminary av. to Clifton ..	Webster and Garfield avs.	Oct. 9, 1895

## NORTH DIVISION, 1895.

Finished	CONTRACTOR	Nature of Improvement	Square Yards	Lineal Feet
June 5, 1895	J. B. Smith & Co. ....	Cedar .....	1,215	720
May 15, 1895	R. F. Conway .....	" .....	384	219
July 9, 1895	Sackley & Peterson . ....	" .....	366	199
Oct. 7, 1895	O. Vider.....	" .....	1,265	866
Oct. 20, 1895	White & Valentine.....	" .....	1,193	734
Nov. 5, 1895	H. Rath.....	" .....	2,673	1,700
Jan. 4, 1896	H. Rath.....	" .....	1,744	872
Oct. 16, 1895	H. Rath.....	" .....	894	460
Oct. 10, 1895	H. Rath.....	" .....	885	410
Oct. 26, 1895	A. J. McBean & Co.....	" .....	1,219	722

## STREETS IMPROVED IN THE

NAME	FROM	TO	Commenced
Balmoral avenue..	Clark .....	Southport avenue.....	Unfinished...
*Bellevue place....	Rush .....	Lake Shore Drive .....	Unfinished...
Berwyn avenue....	Clark .....	Southport avenue.....	Unfinished...
Bryn Mawr .....	Clark .....	Evanston avenue .....	May 28, 1895
*Clark .....	Center .....	North avenue .....	Unfinished...
Dearborn avenue..	Michigan .....	Ohio .....	June 4, 1895
*Dearborn avenue..	Kinzie .....	Michigan .....	June 4, 1895
Farragut avenue...	Clark .....	Southport avenue.....	Unfinished...
Herndon .....	George .....	Wellington .....	Oct. 7, 1895
Huron .....	Wells .....	State .....	Aug. 1, 1895
*Kenmore avenue ..	Rosemont avenue ..	Devon avenue.....	Unfinished...
Lawrence avenue..	Sheffield avenue..	Lake Michigan.....	April 13, 1895
Lincoln avenue....	Montrose boulevard..	Bowmanville road .....	May 12, 1895
Melrose .....	Robey .....	Western avenue .....	May 22, 1895
N. Fifty-ninth .....	Clark .....	Robey .....	Unfinished...
N. Fifty-ninth .....	Clark .....	Southport avenue.....	Unfinished...
*Rosemont avenue..	Evanston avenue .....	Kenmore avenue .....	Unfinished...
School .....	Clark .....	Lincoln avenue.....	June 30, 1895
Southport avenue..	N. Fifty-ninth.....	Balmoral avenue.....	Unfinished...
Summerdale av....	Clark .....	Southport avenue.....	Unfinished...
Superior .....	Wells .....	Clark .....	Nov. 14, 1895
*Thorndale avenue..	Evanston avenue .....	Winthrop avenue.....	Unfinished...
Ward .....	Clybourn avenue .....	Fullerton avenue .....	Aug. 8, 1894
Western avenue....	Belmont avenue .....	Roscoe boulevard.....	July 22, 1895
Wilton avenue....	Grace .....	Sheridan boulevard.....	Aug. 1, 1895
*Webster avenue....	Evanston avenue .....	916 ft. west .....	Unfinished...
*Winthrop avenue..	Rosemont avenue .....	Devon avenue.....	Unfinished...

\*Private Contract.

## NORTH DIVISION, 1895.

Finished	CONTRACTOR	Nature of Improvement	Square Yards	Lineal Feet
	H. Rath	Curbed and filled.		900
	Dolese & Shepard	Macadam	3,570	918
	H. Rath	Curbed and filled.		900
July 22, 1895	O. Vider	Macadam	8,088	2,426
	O. Vider	Cedar	8,177	8,066
Sept. 21, 1895	H. Rath	Vitrified brick	4,635	1,055
June 15, 1895	J. B. Smith & Co.	Cedar	1,163	218
	H. Rath	Curbed and filled.		900
Oct. 31, 1895	H. Rath	Cedar	1,141	597
Aug. 9, 1895	H. Rath	"	6,306	1,580
	Dolese & Shepard	Macadam	2,083	625
Oct. 24, 1895	Netterstrom & Bairstow	"	5,193	1,230
Aug. 9, 1895	Naugle, Holcomb & Co.	Cedar	21,635	6,517
July 30, 1895	R. F. Wilson & Co.	"	11,532	2,731
	H. Rath	"	6,756	1,600
	H. Rath	Curbed and filled.		900
	Dolese & Shepard	Macadam	3,231	893
July 3, 1895	R. F. Wilson & Co.	Cedar	17,612	4,437
	H. Rath	Curbed and filled.		1,400
	H. Rath	"		900
Nov. 23, 1895	Garden City P. & P. Co.	Cedar	3,534	830
	Dolese & Shepard	Macadam	1,786	496
July 10, 1895	Sackley & Peterson	Cedar	7,324	1,735
Sept. 17, 1895	A. J. McBean & Co.	"	5,728	1,357
Oct. 24, 1895	J. Bairstow	Macadam	1,743	523
	C. M. Netterstrom	"	3,053	916
	Dolese & Shepard	"	2,043	613

Total lineal feet of cedar block pavement in alleys ..... 6,902 or 1.31 miles.

Total lineal feet of cedar block pavement in streets ..... 24,668 " 4.67 "

Total lineal feet of macadam pavement in streets ..... 8,640 " 1.64 "

Total lineal feet of brick pavement in streets ..... 1,055 " 0.20 "

Total lineal feet of curbed and filled streets ..... 5,900 " 1.12 "

Total ..... 47,165 or 8.98 miles.



## ALLEYS IMPROVED IN THE

NAME	FROM	BETWEEN	Commenced
Alley .....	Thirty-ninth to Fortieth ..	Dearborn and Armour av.	Oct. 1, 1895
Alley .....	Fiftieth to Fifty-first .....	State and Dearborn av....	May 8, 1895
*Alley .....	Fifth avenue to 82 ft. east.	Lake and S. Water .....	July 1, 1895
Alley .....	State to Dearborn .....	Lake and S. Water .....	Oct. 1, 1895
*Alley .....	Fifth av. to 120 ft. east...	Randolph and Washington	Aug. 1, 1895
*Alley .....	Fifth av. to 131 ft. east...	First alley S. of Madison.	Aug. 1, 1895
*Alley .....	Van Buren to North end..	Wabash and Michigan avs.	July 1, 1895
Alley .....	Eighteenth to S. terminus.	First east of State .....	Jan. 1, 1895
Alley .....	Cottage Grove to Prairie sm.....	100 ft. S. of Twenty-fourth	May 9, 1895
Alley .....	Swift pl. to Whitehouse pl.	Wentworth and Fifth avs.	April 25, 1895
Alley .....	Thirtieth to Thirty-first ..	Cottage Grove and Greenland avs..	May 13, 1895
Alley .....	Prairie av. to 135 ft. west.	Thirty-first and Thirty-second....	June 13, 1895
Alley .....	Thirty-first to Thirty-second.....	Wentworth and Fifth sm. . . .	May 6, 1895
Alley .....	Thirty-first to Thirty-second.....	Dearborn and Armour av.	May 8, 1895
*Alley .....	Thirty-eighth to 160 ft. north...	Langley avenue and Johnson place..	Sept. 1, 1895
Alley .....	Thirty-ninth to Fortieth..	Michigan and Indiana avs.	April 25, 1895
Alley .....	Forty-fourth to Forty-fifth.	Greenwood and Sidney sm. ....	Aug. 26, 1895
*Alley .....	Forty-ninth to 300 ft. north.....	Cottage Grove av. and Drexel blvd..	July 1, 1895
*Alley .....	Forty-ninth south.....	Cottage Grove av. and Drexel blvd..	July 15, 1895

\* Private Contract.

## SOUTH DIVISION, 1895.

Finished	CONTRACTOR	Nature of Improvement	Square Yards	Lineal Feet
Oct. 11, 1895	A. J. McBean & Co.....	Cedar .....	886	593
May 15, 1895	Garden City P. & P. Co.....	" .....	850	546
July 30, 1895	Dillon & Conlan.....	Granite .....	213	82
Oct. 23, 1895	Dillon & Conlan.....	Vitrified brick...	469	385
Aug. 15, 1895	Dillon & Conlan .....	Granite .....	240	120
Aug. 15, 1895	Gaffney & Long .....	" .....	131	180
July 31, 1895	Simpson Bros.....	Asphalt.....	288	178
Jan. 10, 1895	T. F. Moore .....	Concrete.....	71	84
May 12, 1895	Garden City P. & P. Co.....	Cedar .....	840	306
May 7, 1895	Garden City P. & P. Co.....	" .....	842	492
May 27, 1895	A. J. McBean & Co.....	" .....	788	580
June 23, 1895	Barber Asphalt Paving Co...	Asphalt. ....	207	135
May 10, 1895	Garden City P. & P. Co.....	Cedar .....	933	552
May 11, 1895	Garden City P. & P. Co.....	" .....	994	833
Sept. 15, 1895	J. V. McAdam .....	" .....	133	109
July 31, 1895	R. F. Wilson & Co.....	" .....	1,257	595
Sept. 4, 1895	J. V. McAdam .....	" .....	765	459
Aug. 1, 1895	C. E. Blair.....	Concrete.....	667	300
Aug. 1, 1895	C. E. Blair.....	" .....	755	375

## STREETS IMPROVED IN THE

NAME	FROM	TO	Commenced
Ashland avenue...	Fifty-ninth .....	Sixty-third .....	Unfinished ...
Atlantic .....	Forty-seventh .....	Fifty-fifth .....	Aug. 29, 1895
Aberdeen .....	Fifty-first .....	Fifty-fourth .....	Sept. 21, 1894
Bishop court .....	Fifty-first .....	Fifty-fifth .....	Oct. 1, 1894
Butler .....	121st .....	123d .....	Sept. 27, 1894
Carpenter .....	Fifty-fifth .....	Fifty-ninth .....	June 3, 1895
Carpenter .....	Fifty-first .....	Fifty-fourth .....	Sept. 21, 1894
Canal .....	119th .....	123d .....	Sept. 27, 1894
Champlain avenue .....	Fiftieth .....	Fiftieth court .....	May 1, 1895
Champlain avenue .....	Fiftieth court .....	Fifty-first .....	May 1, 1895
Duncan Park .....	Wallace .....	Stewart avenue .....	Oct. 1, 1894
Emerald avenue .....	118th .....	119th .....	Sept. 27, 1894
Emerald avenue .....	121st .....	123d .....	Sept. 27, 1894
Escanaba avenue .....	Eighty-seventh .....	Ninety-first .....	May 7, 1895
Farrell avenue .....	Archer avenue .....	Thirty-first .....	Aug. 5, 1895
Fifth avenue .....	119th .....	123d .....	Sept. 27, 1894
Fox .....	Thirty-first .....	Waterville .....	May 1, 1895
*Forty-seventh .....	Drexel boulevard .....	Lake avenue .....	Oct. 1, 1895
Fifty-first court .....	Halsted .....	Morgan .....	Sept. 21, 1894
Fifty-third .....	Halsted .....	Center avenue .....	Sept. 21, 1894
Fifty-third .....	I. C. R. R. track .....	Lake Michigan .....	May 11, 1895
Fifty-third .....	Woodlawn avenue .....	Lake avenue .....	Nov. 1, 1894
Fifty fourth .....	Halsted .....	Morgan .....	Sept. 21, 1894
Fifty-fourth .....	Drexel boulevard .....	Woodlawn avenue .....	April 27, 1895
Fifty fifth .....	I. C. R. R. track .....	Cornell avenue .....	April 1, 1895
Green .....	Sixty-sixth .....	Sixty-seventh .....	July 30, 1895
Honore .....	Sixty-seventh .....	Sixty-ninth .....	May 29, 1895
Hickling avenue .....	Halsted .....	Morgan .....	Sept. 21, 1894
High .....	106th .....	114th .....	Oct. 19, 1894
Hope avenue .....	Sixty-third .....	Sixty-fourth .....	June 10, 1895
Hoyne avenue .....	Archer avenue .....	Thirty-seventh .....	Unfinished ..
Jeffery avenue .....	Seventy-first .....	Seventy-third .....	Sept. 10, 1894
LaSalle .....	Sixty-first .....	Sixty-third .....	Unfinished ..
Langley avenue .....	Sixty-third .....	Sixty-seventh .....	June 20, 1895
Lowe avenue .....	Diana .....	123d .....	Sept. 27, 1894
Lake Park avenue .....	Thirty-first .....	Thirty-third .....	April 30, 1895
W. 16 ft. LaSalle .....	Madison .....	Randolph .....	Oct. 21, 1895
E. 16 ft. LaSalle .....	Washington .....	Randolph .....	Nov. 1, 1895
*Lake .....	Wabash avenue .....	Market .....	July 1, 1895
Morgan .....	Fifty-first .....	Fifty-fourth .....	Sept. 21, 1894
May .....	Fifty-first .....	Fifty-fourth .....	Sept. 21, 1894
*E. $\frac{1}{2}$ Market .....	Madison .....	190 ft. N. .....	June 1, 1895
*W. $\frac{1}{2}$ Market .....	Madison .....	190 ft. N. .....	June 15, 1895
Ninety-third .....	Commercial avenue .....	Harbor avenue .....	May 23, 1895
100th .....	Ewing avenue .....	Avenue "L" .....	Sept. 27, 1895
118th .....	Wallace .....	Halsted .....	Sept. 27, 1894
119th .....	Wentworth avenue .....	Halsted .....	Oct. 3, 1894
122d .....	Wentworth avenue .....	Halsted .....	Sept. 27, 1894
Peoria .....	Fifty-third .....	Fifty-fourth court .....	Sept. 21, 1894
Parnell avenue .....	119th .....	120th .....	Sept. 27, 1894
Parnell avenue .....	121st .....	123d .....	Sept. 27, 1894
Portland avenue .....	119th .....	123d .....	Sept. 27, 1894
Rosenmerkle .....	Wallace .....	Wright .....	Oct. 1, 1894
Rhodes avenue .....	Sixty-third .....	S. Chicago avenue .....	Oct. 9, 1895
Robertson avenue .....	Grace avenue .....	I. C. R. R. .....	Jan. 17, 1895
Sherman .....	Sixty-seventh .....	Sixty-ninth .....	April 1, 1895
St. Lawrence av. .....	Sixty-third .....	S. Chicago avenue .....	Unfinished ..

## SOUTH DIVISION, 1895.

Finished	CONTRACTOR	Nature of Improvement	Square Yards	Lineal Feet
Oct. 9, 1895	R. F. Conway	Brick	4,977	1,400
July 1, 1895	R. F. Conway	Cedar	22,150	5,313
May 15, 1895	P. Farrell	"	8,461	2,004
July 15, 1895	P. Farrell	"	11,423	2,352
June 30, 1895	Netterstrom & Bairstow	Macadam	1,000	500
July 1, 1895	R. F. Wilson & Co.	Cedar	10,005	2,370
July 15, 1895	Farrell & Wilson	"	8,461	2,004
June 30, 1895	Netterstrom & Bairstow	Macadam	3,913	1,246
June 30, 1895	Goodwin & Quaid	"	1,516	364
June 30, 1895	Goodwin & Quaid	"	1,232	285
May 22, 1895	Farrell & Wilson	Cedar	3,880	970
July 15, 1895	Netterstrom & Bairstow	Macadam	2,158	610
July 15, 1895	Netterstrom & Bairstow	"	1,000	500
Aug. 15, 1895	Kimball & Cobb Stone Co.	"	10,174	2,693
Sept. 9, 1895	Garden City P. & P. Co.	Cedar	5,511	2,110
July 15, 1895	Netterstrom & Bairstow	Macadam	8,238	2,540
Aug. 27, 1895	R. F. Wilson & Co.	Cedar	4,927	1,167
Nov. 1, 1895	Chicago City Railway Co.	Macadam	9,302	3,220
July 1, 1895	Farrell & Wilson	Cedar	5,485	1,299
July 1, 1895	Farrell & Wilson	"	10,454	2,476
July 17, 1895	J. H. Palmer	Macadam	3,513	719
July 3, 1895	Sackley & Peterson	Vitrified brick	12,523	2,562
July 1, 1895	Farrell & Wilson	Cedar	11,286	2,673
Aug. 3, 1895	Brownell Improvement Co.	Macadam	6,307	1,892
Aug. 5, 1895	R. F. Wilson & Co.	"	944	250
Sept. 12, 1895	J. V. McAdam	Cedar	2,053	616
June 6, 1895	J. Lyman & Co.	Macadam	4,394	1,041
July 1, 1895	Farrell & Wilson	Cedar	5,442	1,289
July 1, 1895	H. Hiensen	Macadam	1,000	500
July 5, 1895	H. Rath	"	1,507	620
April 13, 1895	R. F. Conway	Curbed and filled.		1,272
Aug. 24, 1895	M. Steude	Macadam	1,000	500
July 15, 1895	H. Rath	"	1,883	565
June 30, 1895	A. J. McBean & Co.	Cedar	10,351	2,556
Nov. 12, 1895	Netterstrom & Bairstow	Macadam	10,274	2,975
Nov. 12, 1895	Western Paving & Supply Co.	Sheet asphalt	4,712	1,414
Nov. 12, 1895	J. B. Smith & Co.	Vitrified brick	1,405	790
Aug. 1, 1895	J. B. Smith & Co.	"	619	384
July 1, 1895	Dillon & Conlan	Granite	12,205	3,309
July 1, 1895	Farrell & Wilson	Cedar	8,449	2,001
July 1, 1895	Farrell & Wilson	"	8,461	2,004
June 15, 1895	Dillon & Conlan	Granite	950	190
Oct. 18, 1895	James Conlan	"	950	190
Oct. 27, 1895	R. F. Conway	Cedar	5,058	1,550
July 15, 1895	Brownell Improvement Co.	Macadam	4,572	1,010
April 4, 1895	Netterstrom & Bairstow	"	1,950	1,210
July 15, 1895	Kimball & Cobb Stone Co.	"	1,000	500
July 1, 1895	Netterstrom & Bairstow	"	13,945	3,900
July 15, 1895	Farrell & Wilson	Cedar	8,897	923
July 15, 1895	Netterstrom & Bairstow	Macadam	1,000	500
July 15, 1895	Netterstrom & Bairstow	"	1,000	500
July 15, 1895	Netterstrom & Bairstow	"	8,231	2,540
Nov. 12, 1895	O. Vider	"	2,016	605
June 25, 1895	Garden City P. & P. Co.	Cedar	13,905	3,534
July 20, 1895	Goodwin & Quaid	Macadam	1,329	520
July 20, 1895	A. J. McBean & Co.	Cedar	3,205	1,009
July 20, 1895	Garden City P. & P. Co.	Curbing		5,500



## STREETS IMPROVED IN THE

NAME	FROM	TO	Commenced
Short .....	Hickory .....	C. & A. Ry. ....	July 20, 1895
Springer avenue ..	Laurel avenue .....	Waterville .....	June 28, 1895
Sixty-fifth court ...	Stewart avenue .....	Honore .....	April 5, 1895
Sixty-first .....	Halsted .....	Center avenue .....	May 25, 1895
Sixty-eighth .....	Halsted .....	Wallace .....	April 1, 1895
Sixty-seventh .....	S. Park avenue .....	Stony Island avenue .....	Unfinished ..
Seventy-first .....	S. Park avenue .....	Cottage Grove avenue .....	Unfinished ..
Thirty-second .....	Halsted .....	Laurel .....	May 10, 1895
Thirty-sixth .....	State .....	Armour avenue .....	May 27, 1895
Thirty-sixth .....	Western boulevard .....	Oakley avenue .....	Aug. 1, 1895
Thirty-eighth court	Halsted .....	Laurel .....	July 1, 1895
Wabash avenue ...	Sixty-sixth .....	Seventy-first .....	Unfinished ..
Wallace .....	Diana .....	128d .....	Sept. 27, 1894

\* Private Contract.

## SOUTH DIVISION, 1895—CONTINUED.

Finished	CONTRACTOR	Nature of Improvement	Square Yards	Lineal Feet
Aug. 3, 1895	Garden City P. & P. Co.....	Cedar .....	1,301	418
Sept. 26, 1895	R. F. Wilson & Co.....	" .....	8,891	2,106
Aug. 16, 1895	Eggleston & Brownell.....	Macadam .....	3,139	942
July 10, 1895	Gahan & Byrne .....	" .....	4,777	1,131
.....	A. J. McBean & Co.....	Cedar .....	4,300	1,290
.....	Naugle, Holcomb & Co....	Curbing .....	.....	12,000
.....	H. Hiensen.....	Curbed and filled. ....	.....	4,600
Aug. 14, 1895	R. F. Wilson & Co.....	Cedar .....	5,169	1,224
June 6, 1895	A. J. McBean & Co.....	" .....	2,435	577
Aug. 10, 1895	R. F. Wilson & Co.....	" .....	1,847	489
July 31, 1895	Garden City P. & P. Co.....	" .....	5,609	1,329
.....	Mexican Asphalt Co.....	Asphalt.....	1,400	500
July 15, 1895	Netterstrom & Bairstow ....	Macadam .....	11,080	2,975

Total lineal feet cedar block pavement in alleys .....	5,069 or	0.96 miles.
Total lineal feet cedar block pavement in streets .....	47,684 "	9.02 "
Total lineal feet asphalt pavement in alleys .....	313 "	0.06 "
Total lineal feet asphalt pavement in streets .....	1,914 "	0.36 "
Total lineal feet granite pavement in alleys .....	333 "	0.06 "
Total lineal feet granite pavement in streets .....	3,689 "	0.70 "
Total lineal feet macadam pavement in streets .....	37,353 "	7.07 "
Total lineal feet brick pavement in alleys .....	385 "	0.07 "
Total lineal feet brick pavement in streets .....	5,136 "	0.98 "
Total lineal feet curbed and filled in streets .....	24,131 "	4.57 "

Total ..... 125,971 or 23.85 miles.

## ALLEYS IMPROVED IN THE

NAME	FROM	BETWEEN	Commenced
Alley .....	Halsted to S. Union .....	Twenty-first and Lisle....	May 22, 1895
Alley .....	Sibley to Fayette .....	Harrison and Vernon Park pl. ....	May 30, 1895
Alley .....	Adams to Morgan .....	Jackson and Aberdeen .....	May 22, 1895
Alley .....	Jackson to Van Buren .....	Francisco and Stevens .....	June 10, 1895
Alley .....	Aberdeen to Center av. ....	Tilden and Congress .....	June 25, 1895
Alley .....	Desplaines to Jefferson .....	Madison and Monroe .....	July 20, 1895
Alley .....	Jefferson to Desplaines .....	Taylor and DeKoven .....	July 20, 1895
Alley .....	Sangamon to Peoria .....	Madison and Monroe .....	July 20, 1895
Alley .....	Halsted to Marble .....	Adams and Desplaines .....	Aug. 20, 1895
Alley .....	Monroe to Marble .....	Desplaines and Halsted .....	Aug. 20, 1895
Alley .....	Taylor to W. Eleventh .....	Sholto and Blue Island av. ....	Aug. 22, 1895
Alley .....	Polk to Hope .....	Blue Island av. and Morgan .....	June 25, 1895
Alley .....	Halsted to Newberry av. ....	Fourteenth and Henry .....	Oct. 11, 1895
Alley .....	Morgan to Sangamon .....	Twelfth and Maxwell .....	Nov. 18, 1895
Alley .....	Clarinda to Cornelia .....	Paulina and Rumsey .....	July 20, 1895
Alley .....	California av. to C. & N.-W. Ry. ....	Madison and Warren av. ....	July 30, 1895
Alley .....	Desplaines to Alley E. ....	Madison and Washington .....	Aug. 2, 1895
Alley .....	Oakley to Western avs .....	Lake and Park av. ....	July 15, 1895
Alley .....	May to Curtis .....	Madison and Washington .....	Sept. 17, 1895
Alley .....	Morgan to Sangamon .....	Washington and Randolph .....	Sept. 23, 1895
Alley .....	Curtis to May .....	Lake and Randolph .....	Sept. 27, 1895
Alley .....	May to Ann .....	Randolph and Lake .....	Oct. 15, 1895
Alley .....	Canal to Clinton .....	Randolph and Washington .....	Oct. 16, 1895
Alley .....	Lake to Fulton .....	Maplewood and Rockwell .....	Sept. 10, 1895
Alley .....	St. Johns pl. to Union Park pl. ....	Lake and Fulton .....	July 3, 1895
Alley .....	Randolph to Lake .....	Halsted and Green .....	May 15, 1895
Alley .....	Blanche to North avenue .....	Holt and Dickson .....	Nov. 15, 1895
*Alley .....	Jefferson to Desplaines .....	Lake and Randolph .....	.....
Alley .....	Shober to Leavitt .....	North and Waubansia avs. ....	July 14, 1895
Alley .....	Oakley avenue to Leavitt .....	Milwaukee and Wilmot avs. ....	Aug. 8, 1895
Alley .....	Western to Oakley avs. ....	Milwaukee and Wilmot avs. ....	Sept. 28, 1895

\* Private Contract.

## WEST DIVISION, 1895.

Finished	CONTRACTOR	Nature of Improvement	Square Yards	Lineal Feet
May 25, 1895	R. F. Conway.....	Cedar .....	854	746
May 31, 1895	R. F. Conway.....	" .....	302	175
May 25, 1895	A. J. McBean & Co.....	" .....	344	240
June 26, 1895	Garden City P. & P. Co.....	" .....	1,199	696
Aug. 9, 1895	Geo. A. Thatcher & Co.....	" .....	610	610
Aug. 17, 1895	White & Valentine.. ..	" .....	172	162
Aug. 16, 1895	Sackley & Peterson .....	" .....	497	354
Aug. 17, 1895	H. Rath .....	" .....	103	101
Aug. 27, 1895	R. F. Conway.....	" .....	324	201
Aug. 27, 1895	R. F. Conway.....	" .....	199	190
Sept. 17, 1895	R. F. Conway.....	" .....	1,229	615
Aug. 22, 1895	Geo. A. Thatcher & Co.. .	" .....	715	700
Oct. 22, 1895	H. Rath .....	" .....	570	376
Dec. 8, 1895	J. Bairstow .....	" .....	322	216
Aug. 2, 1895	Talbot Paving Co.....	" .....	467	400
Aug. 5, 1895	J. B. Smith & Co.....	" .....	1,971	1,109
Aug. 5, 1895	Talbot Paving Co.....	" .....	280	151
Sept. 12, 1895	R. F. Wilson.....	" .....	988	1,190
Oct. 2, 1895	Sackley & Peterson .....	" .....	417	192
Sept. 30, 1895	Sackley & Peterson .....	" .....	215	126
Oct. 20, 1895	White & Valentine.....	" .....	530	415
Oct. 20, 1895	H. Rath .....	" .....	569	510
Oct. 25, 1895	H. Rath .....	" .....	159	125
Sept. 23, 1895	R. F. Conway.....	" .....	1,531	875
Aug. 8, 1895	Sackley & Peterson .....	" .....	754	595
May 16, 1895	R. F. Conway.....	" .....	589	511
Dec. 27, 1895	H. Rath .....	" .....	1,122	734
.....	Gaffney & Long .....	Granite .....	451	220
Aug. 4, 1895	Sackley & Peterson .....	Cedar .....	1,248	760
Aug. 11, 1895	Chas. McAdam.....	" .....	1,377	800
Oct. 2, 1895	R. F. Conway.....	" .....	1,251	800



## STREETS IMPROVED IN THE

NAME	FROM	TO	Commenced
Adams .....	W. Fortieth .....	W. Forty-sixth .....	May 15, 1895
Augusta .....	California avenue .....	Grand avenue .....	May 14, 1895
Augusta .....	Western avenue .....	Seymour avenue .....	May 1, 1895
Ashland avenue ..	Lake .....	Indiana .....	July 15, 1895
Almond .....	Ashland .....	Taylor .....	June 5, 1895
Byron .....	Humboldt boulevard .....	California avenue .....	Unfinished ..
Colorado avenue ..	Douglas boulevard .....	W. Fortieth .....	July 22, 1895
Carroll avenue .....	Homan avenue .....	326 ft. east .....	June 10, 1895
Chicago avenue .....	California avenue .....	Crawford avenue .....	Aug. 3, 1894
*Clarkson court ..	Lake .....	Walnut .....	Unfinished ..
Desplaines .....	Madison .....	Lake .....	July 22, 1895
Dickens avenue ..	Humboldt boulevard .....	California avenue .....	Unfinished ..
Eagle .....	Union .....	Desplaines .....	Unfinished ..
Fillmore .....	Douglas Park boulevard ..	W. Fortieth .....	May 20, 1895
Francisco .....	Chicago avenue .....	Division .....	May 31, 1895
Front .....	Sangamon .....	Lessing .....	Oct. 5, 1895
Frankfort .....	Western avenue .....	Oakley avenue .....	Unfinished ..
Grenshaw .....	Douglas boulevard .....	W. Fortieth .....	Aug. 3, 1894
Green .....	Lake .....	Van Buren .....	Sept. 24, 1895
Harrison .....	Paulina .....	Western avenue .....	Sept. 1, 1895
Hamlin avenue .....	Chicago avenue .....	Kinzie .....	May 1, 1895
Hamlin avenue .....	Ogden avenue .....	Twenty-sixth .....	Aug. 1, 1894
Howard avenue .....	North avenue .....	Humboldt .....	Unfinished ..
Humboldt .....	Palmer avenue .....	Armitage avenue .....	Unfinished ..
Iowa .....	Lincoln .....	Robey .....	June 7, 1895
*Jefferson .....	Lake .....	Carroll avenue .....	Unfinished ..
Kedzie avenue .....	Twenty-second .....	Twenty-sixth .....	Feb. 27, 1893
Kedzie avenue .....	Twenty-sixth .....	Thirty-first .....	April 17, 1893
Madison .....	Jefferson .....	Center avenue .....	Oct. 8, 1895
May .....	W. Twentieth .....	W. Twenty-second .....	May 22, 1895
Milwaukee avenue ..	Lake .....	Chicago avenue .....	Aug. 2, 1895
Milwaukee avenue ..	Chicago avenue .....	Ashland avenue .....	Unfinished ..
Milwaukee avenue ..	Crawford avenue .....	Irving Park boulevard .....	Oct. 14, 1894
Morgan .....	Fulton .....	Carroll avenue .....	June 15, 1895
Mozart .....	Palmer avenue .....	Armitage avenue .....	Unfinished ..
Ohio .....	Kedzie avenue .....	Ayres avenue .....	May 1, 1895
Polk .....	Douglas boulevard .....	W. Fortieth .....	July 11, 1895
Palmer avenue .....	Humboldt boulevard .....	California avenue .....	Oct. 3, 1895
Perry avenue .....	Milwaukee avenue .....	Fullerton avenue .....	Sept. 2, 1895
Randolph .....	Halsted .....	Ann .....	Oct. 15, 1895
Rebecca .....	Rockwell .....	Pan Handle Ry. ....	June 13, 1895
Shakespeare av. ....	Humboldt boulevard .....	California avenue .....	Oct. 3, 1895
Sheridan avenue ..	Armitage avenue .....	Bloomingdale road .....	May 25, 1895
Trumbull avenue ..	Douglas boulevard .....	W. Twenty-sixth .....	Aug. 3, 1894
Twenty-first .....	Pan Handle Ry. ....	Douglas boulevard .....	July 20, 1894
Union .....	Kinzie .....	Milwaukee avenue .....	June 21, 1895
Wallace avenue .....	Humboldt boulevard .....	Belmont avenue .....	June 8, 1895

\* Private Contract.

## WEST DIVISION, 1895.

Finished	CONTRACTOR	Nature of Improvement	Square Yards	Lineal Feet
June 7, 1895	Bermudez Asphalt Paving Co.	Asphalt.....	12,573	3,988
Sept. 19, 1895	R. F. Conway.....	Cedar.....	12,378	2,983
Sept. 18, 1895	R. F. Conway.....	".....	2,658	616
July 24, 1895	Sackley & Peterson.....	".....	2,008	1,236
Sept. 2, 1895	R. F. Conway.....	".....	1,478	370
	Naugle, Holcomb & Co.	Curbed and filled.	.....	1,800
Dec. 31, 1895	R. F. Wilson & Co.....	Cedar.....	5,000	1,300
Sept. 20, 1895	R. F. Conway.....	".....	1,396	330
July 2, 1895	R. F. Conway.....	".....	42,378	7,489
	Dolese & Shepard.....	Macadam.....	1,338	430
Aug. 22, 1895	James Conlan.....	Granite.....	5,262	1,338
	Naugle, Holcomb & Co.	Cedar.....	2,512	754
	James Conlan.....	Granite.....	500	160
Nov. 8, 1895	Standard Paving Co.....	Asphalt.....	4,145	1,889
Aug. 2, 1895	O. Vider.....	Cedar.....	10,956	2,596
Nov. 4, 1895	H. Rath.....	".....	708	202
July 6, 1895	Garden City P. & P. Co.....	".....	2,493	590
Dec. 31, 1895	Bermudez Asphalt Paving Co.	Asphalt.....	4,143	1,296
Nov. 23, 1895	White & Valentine.....	Cedar.....	12,372	2,902
Nov. 14, 1895	Bermudez Asphalt Paving Co.	Asphalt.....	12,474	4,611
Dec. 2, 1895	Gaffney & Long.....	Brick.....	10,533	2,599
Dec. 24, 1895	J. O'Laughlin.....	Macadam.....	9,867	2,960
	O. Vider.....	Cedar.....	1,700	400
	Naugle, Holcomb & Co.	".....	3,000	900
June 12, 1895	J. B. Smith & Co.....	".....	2,350	557
	Gaffney & Long.....	Granite.....	2,176	388
Aug. 27, 1895	P. Farrell and R. F. Wilson.	Cedar.....	10,963	2,509
Dec. 31, 1895	J. V. McAdam.....	".....	11,365	2,692
Nov. 23, 1895	Barber Asphalt Paving Co...	Asphalt.....	15,282	3,953
Aug. 17, 1895	R. F. Wilson & Co.....	Cedar.....	3,601	850
Oct. 1, 1895	J. B. Smith & Co.....	Brick.....	17,784	5,928
	Talbot Paving Co.....	Cedar.....	6,000	2,000
July 31, 1895	O. Vider.....	".....	13,070	4,525
June 17, 1895	J. B. Smith & Co.....	".....	1,329	249
	Naugle, Holcomb & Co.	".....	3,000	900
Oct. 25, 1895	Andrew Jaicks.....	Asphalt.....	16,794	5,011
Aug. 1, 1895	Standard Paving Co.....	".....	4,116	1,296
Nov. 2, 1895	Naugle, Holcomb & Co.....	Cedar.....	3,666	1,100
Sept. 14, 1895	O. Vider.....	".....	7,122	1,686
Nov. 15, 1895	Sackley & Peterson.....	".....	9,791	2,703
Oct. 26, 1895	Talbot Paving Co.....	".....	1,784	415
Nov. 23, 1895	Naugle, Holcomb Paving Co.	".....	3,666	1,100
June 8, 1895	O. Vider.....	".....	5,410	1,280
Dec. 31, 1895	Bermudez Asphalt Paving Co.	Asphalt.....	20,070	6,690
Nov. 14, 1895	R. F. Conway.....	Cedar.....	13,391	2,851
July 5, 1895	Garden City P. & P. Co.....	".....	1,827	244
Aug. 8, 1895	Sackley & Peterson.....	".....	16,416	3,887

Total lineal feet cedar block pavement in alleys..... 14,675 or 2.78 miles.

Total lineal feet cedar block pavement in streets..... 52,166 " 9.88 "

Total lineal feet asphalt pavement in streets..... 28,184 " 5.34 "

Total lineal feet granite pavement in alleys..... 220 " 0.04 "

Total lineal feet granite pavement in streets..... 1,886 " 0.36 "

Total lineal feet macadam pavement in streets..... 3,390 " 0.64 "

Total lineal feet brick pavement in streets..... 8,523 " 1.61 "

Total lineal feet curbed and filled..... 1,800 " 0.34 "

Total..... 110,844 or 20.99 miles.



## SUMMARY OF STREETS IMPROVED DURING 1895.

PAVEMENT.	NORTH DIVISION, Including Lake View and Rogers Park.			SOUTH DIVISION, Including Hyde Park and Lake.			WEST DIVISION, Including Jefferson and Cicero.			TOTALS.				
	Square Yards.	Lineal Feet.	Miles.	Square Yards.	Lineal Feet.	Miles.	Square Yards.	Lineal Feet.	Miles.	Square Yards.	Lineal Feet.	Miles.	Alleys. Miles.	Streets. Miles.
Cedar Blocks.....	102,746	31,570	5.98	200,204	52,717	9.98	236,076	66,841	12.66	539,026	151,128	28.62	5.04	23.68
Asphalt .....	.....	.....	.....	6,557	2,227	0.42	89,597	28,184	5.34	96,154	30,411	5.76	0.06	5.70
Granite .....	.....	.....	.....	14,689	4,022	0.76	8,389	2,106	0.40	23,078	6,128	1.16	0.10	1.06
Macadam .....	30,790	8,940	1.64	123,394	37,353	7.07	11,205	3,890	0.64	165,389	49,383	9.35	.....	9.35
Brick ... ..	4,635	1,055	0.20	19,993	5,521	1.05	28,317	8,523	1.61	52,945	15,099	2.86	0.07	2.79
Totals.....	138,171	41,295	7.82	364,837	101,840	19.28	374,184	109,044	20.65	877,192	252,149	47.75	5.27	42.48
Curbed and Filled .....	.....	5,900	1.12	.....	24,131	4.57	.....	1,800	0.34	.....	31,831	6.03	.....	6.03
Grand Totals .....	138,171	47,165	8.94	364,837	125,971	23.85	374,184	110,844	20.99	877,192	283,980	53.78	5.27	48.51

**TABLE SHOWING PERCENTAGE OF EACH CLASS OF PAVEMENT  
TO TOTAL MILEAGE.**

PAVEMENT.	Miles.	Percentage.
Cedar Block.....	726.01	64.62
Macadam.....	832.14	29.56
Medina Stone.....	2.49	0.22
Granite Block.....	23.31	2.07
Sheet Asphalt.....	30.75	2.74
Block Asphalt.....	3.59	0.32
Brick.....	4.17	0.37
"Foundation".....	1.08	0.10
Totals.....	1,123.54	100.00

**DISTRIBUTION OF KINDS OF PAVEMENT.**

The following table shows the mileage of each class of pavement in use in the principal divisions of the City, December 31, 1895:

DIVISION.	Cedar Block.	Macadam	Medina Stone.	Granite.	Sheet Asphalt.	Block Asphalt.	Brick.	Founda- tion.	Totals.
North.....	157.66	57.89	0.49	0.10	5.03	.....	0.64	1.08	222.89
South.....	301.23	254.08	1.61	19.99	5.86	3.59	1.92	.....	488.28
West.....	367.12	20.17	0.89	3.22	19.86	.....	1.61	.....	412.37
TOTALS.....	726.01	832.14	2.49	23.31	30.75	3.59	4.17	1.08	1,123.54



RECAPITULATION OF STREETS AND ALLEYS BY TOWNSHIPS, SHOWING IMPROVED AND UNIMPROVED  
STREETS AND ALLEYS, AT THE CLOSE OF THE YEAR 1895.

TOWNSHIP.	Total Streets— Miles.	Total Alleys— Miles.	Cedar Block.	Macadam.	Medina Stone.	Granite.	Sheet Asphalt.	Block Asphalt.	Brick.	"Foundation."	Improved Streets— Miles.	Unimproved Streets— Miles.	Repaved in 1895—Miles.
*Calumet.....	160.51	92.22	.....	8.79	.....	.....	.....	.....	.....	.....	8.79	151.72	.....
Hyde Park.....	581.78	260.71	22.90	166.05	.....	.....	2.78	.....	1.16	.....	192.89	388.89	0.61
Jefferson....	300.92	118.67	29.53	.....	.....	.....	0.77	.....	.....	.....	30.30	270.62	.....
Lake.....	387.47	257.49	57.29	69.93	.....	.....	.....	.....	0.27	.....	137.49	250.98	0.23
Lake View.....	151.12	99.49	56.80	52.80	.....	.....	.....	.....	0.44	.....	110.03	41.08	.....
North Town.....	169.72	78.60	98.18	1.07	0.49	0.10	4.72	.....	0.20	.....	104.76	64.96	1.45
Norwood Park.....	26.50	10.43	.....	.....	.....	.....	.....	.....	.....	.....	.....	26.50	.....
Rogers Park and West Ridge..	35.00	17.16	2.68	4.02	.....	.....	0.31	.....	.....	1.08	8.09	26.91	.....
South Town.....	229.74	107.70	121.04	9.31	1.61	19.99	3.08	3.59	0.49	.....	159.11	70.63	1.06
West Town.....	487.41	282.90	337.59	20.17	0.30	3.22	19.09	.....	1.61	.....	382.07	105.34	4.91
Totals.....	2,530.17	1,323.37	726.01	332.14	2.49	23.31	30.75	3.59	4.17	1.08	†1,123.54	1,406.63	8.26

\* Including Washington Heights and Ganoe. † Of this total paved mileage 1,039.02 are Streets and 104.52 Alleys.

The following table shows the amount of pavement laid in streets and alleys each year since the introduction of street paving in 1855 to the present year. From 1835 to 1844 the work on streets consisted of grading only. From 1844 to 1855 improvements were made by planking, after which the more substantial forms of paving came into use:

YEAR.	MILES.	YEAR.	MILES.	YEAR.	MILES.		
					Alleys.	Streets.	Totals.
1855	1.72	1869	5.46	1881	0.13	24.39	24.52
1856	0.26	1869	18.32	1882	0.58	24.37	24.95
1857	2.62	1870	19.96	1883	1.96	20.53	22.49
1858	7.20	1871	25.63	1884	1.60	32.92	34.52
1859	5.70	1872	1.82	1885	1.16	36.90	38.06
1860	.....	1873	10.19	1886	1.51	42.15	43.66
1861	0.69	1874	9.07	1887	2.60	34.15	36.75
1862	2.57	1875	11.49	1888	2.19	52.14	54.33
1863	2.00	1876	10.50	1889 } .....	3.78	103.90	*146.54 107.68
1864	2.40	1877	12.29	1890	8.50	91.22	99.72
1865	2.03	1878	11.01	1891	12.86	104.73	117.59
1866	8.87	1879	6.83	1892	14.26	93.71	107.97
1867	11.37	1880	16.84	1893 } .....	31.36	106.10	*6.91 137.46
				1894	16.94	75.01	91.95
				1895	5.27	42.48	47.75
Totals.....					104.70	924.70	1,349.69

\* The mileage in heavy type opposite the years 1889 and 1893 gives the total amount of paved streets prior to those years in the annexed territories of Hyde Park, Lake and Lake View, and of Rogers Park and West Ridge, respectively.

Of this amount 226.15 miles have been repaved during the same period, which reduces the actual amount of paved streets and alleys within the corporate limits on December 31, 1895, to 1,123.54 miles (streets, 1,019.02; alleys, 104.52). To this may be added 1,406.63 miles of unimproved streets; which makes a total of 2,530.17 miles of streets in Chicago at this date.

## REPAVING.

The amount of repaving done by the division foremen in repairing improved streets, the replacing of pavement where openings were made by Water, Sewer and Fire Departments, etc., and on account of street permits and general repairs, is shown in detail in the following table :

FOR WHAT PURPOSE.	NORTH Div.	SOUTH Div.	WEST Div.	TOTAL
	Square Yds.	Square Yds.	Square Yds.	Square Yds.
General Repairs.....	84,807	22,994	55,858	113,659
Water Department.....	405	889	.....	1,244
Sewer Department.....	228	879	312	914
Fire Department.....	.....	15	214	229
Street Permits.....	7,479	8,857	2,307	18,543
TOTALS.....	42,914	28,084	58,591	129,589
Amount of repaving done by contractors on street repairs for the City.... }	7,462	86,189	8,076	51,727
GRAND TOTAL.....	50,376	64,273	66,667	181,316

(Of the 129,589 square yards of repaving, 56,073 square yards was with old material.)

Total number of square yards, 181,316.

The above does not include any repaving done by contractors for gas companies, Bureau of Light, etc.

## LUMBER.

The following table shows in detail the amount of lumber used by the division foremen in the construction and repair of aprons, culverts, crossings, etc., and also for sidewalk intersections and general repairs :

FOR WHAT USED.	NORTH DIVISION.		SOUTH DIVISION.		WEST DIVISION.	
	No.	LUMBER.	No.	LUMBER.	No.	LUMBER.
		Sq. Feet.		Sq. Feet.		Sq. Feet.
Aprons .....	95	9,053	379	30,105	848	45,636
Crossings .....	168	25,683	934	114,079	497	51,034
Culverts .....	100	8,952	889	135,774	326	52,915
Drains .....	2	280	34	9,616	26	2,810
Steps and Railings .....	53	1,373	184	9,997	238	15,231
Street repairs .....		19,321		10,976		6,965
Sidewalk intersections .....	120	13,645	651	63,791	556	57,777
Sidewalk, general repairs .....		257,617		693,592		376,532
Totals .....		335,924		1,067,930		608,900

## RECAPITULATION.

North Division..... 335,924 feet of lumber.  
 South Division..... 1,067,930 feet of lumber.  
 West Division..... 608,900 feet of lumber.

Grand Total..... 2,012,754 feet of lumber.

(In this amount is included 326,543 feet of old lumber.)

Total number of aprons built and repaired.....1,322  
 Total number of crossings built and repaired .....1,599  
 Total number of culverts built and repaired.....1,315  
 Total number of drain boxes built and repaired..... 62  
 Total number of steps and railings built and repaired..... 475  
 Total number of intersections built and repaired.....1,327



## UNIMPROVED STREETS.

The money at the disposal of this Bureau for the purpose of grading, ditching, etc., has been judiciously expended in keeping unimproved streets in good, passable condition, and keeping ditches flooded in localities where sewers have not yet been built.

The total length of streets graded and ditched by the division foremen amounts, in the aggregate, to one thousand one hundred and eleven (1,111) miles, proportioned as follows :

	Grading.	Ditching.
North Division .....	122 miles.	140 miles.
South Division .....	51 miles.	184 miles.
West Division .....	578 miles.	36 miles.
Totals .....	751 miles.	360 miles.

## SIDEWALKS.

During the year 1895, 94.45 miles of plank sidewalk, 88.81 miles of concrete walk, and 1.35 miles of stone walk were constructed, making a total of 184.61 miles ; 4.70 miles of stone and 11.81 miles of concrete walks were constructed by the various park boards, making a grand total for the year of 201.12 miles.

Six hundred and seventy-seven ordinances were passed for wood walks of which thirty-seven were repealed, 204 for concrete walks of which fourteen were repealed, and sixteen for stone walks, making a total of 897 ordinances passed for sidewalks, of which number 846 are now in force.

There were 285 estimates for plank walks and 133 estimates for concrete and stone walks prepared for the Honorable City Council during the year.

Five thousand six hundred and sixty-five (5,665) complaints of defective walks were registered, reported on by the inspectors and notice sent to the property owners to put same in proper condition. About eighty-five per cent. complied with said notice.

The following tables show in detail the amount of sidewalk constructed during the year, and the total mileage now under control of the City and various park boards.

**NUMBER OF MILES OF WOOD, STONE AND CONCRETE SIDEWALKS  
BUILT DURING 1895.**

DIVISION.	Wood, Miles.	Stone, Miles.	Concrete, Miles.	Total Miles.	Sidewalks Repaired.	Total Miles.
North .....	9.98	.10	29.86	39.94	.28	40.22
South .....	47.90	.74	35.68	84.32	1.98	86.30
West .....	86.57	.51	28.27	60.35	1.00	61.85
Totals .....	94.45	1.35	88.81	184.61	3.26	187.87

**TOTAL NUMBER OF MILES OF SIDEWALKS UNDER THE CONTROL  
OF THE CITY AND THE SOUTH, WEST AND LINCOLN PARK  
COMMISSIONERS AT THE CLOSE OF THE YEAR.**

UNDER CONTROL OF	MATERIAL.			TOTAL MILES.
	Wood, Miles.	Stone, Miles.	Concrete, Miles.	
City .....	3,749.30	280.50	527.00	4,506.80
South Park Commissioners .....		20.00	30.00	50.00
West Park Commissioners .....		11.05	50.70	61.75
Lincoln Park Commissioners .....		2.17	4.13	6.30
Totals. ....	3,749.30	288.72	611.83	4,624.85

Wooden sidewalks at present are prohibited in the three divisions of the City, as follows :

NORTH DIVISION :

Division street to the river ;  
Lake Michigan to Wells street.

SOUTH DIVISION :

Van Buren street to the river ;  
Lake Michigan to the river.

WEST DIVISION :

The river to Halsted street ;  
Van Buren street to Lake street.

In connection with the above I would recommend the extension of the district in which only stone and concrete walks may be built as follows :

That part of the North Division west of Lake Michigan, north of the river, east of the west line of Wells street, north to the south line of Division street, west on the south line of Division street to the west line of Halsted street, north along the west line of Halsted street to the southwest line of Clybourn avenue, thence northwest along this line to the north line of Belmont avenue, along the north line of Belmont avenue to the lake.

All that portion of the South Division lying west of Lake Michigan, south of the main river and east of the South branch to and including the south line of Harrison street, east along the south line of Harrison street to the west line of Fifth avenue, south on the west line of Fifth avenue to the south line of Taylor street, east on the south line of Taylor street to the west line of Clark street, south on the west line of Clark street to the north line of Thirty-fifth street, west on this line to the west line of Wentworth avenue, thence south on the west line of Wentworth avenue to the south line of Garfield boulevard, along the south line of Garfield boulevard to a point intersecting with Lake Michigan.

In making the above recommendation I am fully convinced that no hardship will be imposed on the property owners, as over seventy-five per cent. of the walks laid in this territory are cement or stone. The difference in the cost of concrete and wood walks is very slight, and taking into consideration the improved appearance of the street, the saving in cost of repair to the property owner and the City, and the impossibility of accident from loose or defective plank, the change more than justifies the extra expense.



## PERMITS FOR OPENING STREETS.

Three thousand and eight (3,008) permits were issued to sundry persons to open improved streets. A cash deposit covering cost of replacing pavement, etc., to its original condition was made on each permit issued.

One thousand eight hundred and twenty-three (1,823) openings were made on improved streets by gas companies and sundry other corporations, under general and special deposits, the work of replacing the pavements being done by contractors, subject to inspection and acceptance of the Department, the cost of such inspection being borne by the respective corporations.

Five thousand seven hundred and eighty-nine (5,789) permits were issued to sundry persons to open unimproved streets. The City incurring no expense on account of these openings, no deposit was required. These permits, however, are issued to licensed plumbers, contractors, etc., only upon filing a bond to protect the City against damages resulting from accidents through such openings.

Total number of openings, ten thousand six hundred and twenty (10,620).

The following statement shows in detail the amount of deposits, cost of repairs, amount rebated, etc.:

## OPENING STREETS.

Amount of deposits made.....	\$59,677 99
Amount retained for cost of repaving.....	10,968 49
Amount rebated to depositors .....	35,202 85
Amount retained on unsettled permits .....	13,506 65
Average amount of each deposit.....	19 83
Average amount retained for costs.....	3 64

## CORPORATION PERMITS.

Amount of deposits made.....	\$45,051 63
Amount of repaving charges.....	20,742 11
Amount rebated to depositors .....	9,134 06
Amount retained on unsettled permits .....	15,175 46
Amount paid by corporations for inspection.....	30,634 01



## PERMITS FOR USE OF STREETS.

Eight hundred and fifty-three (853) permits were issued to sundry parties to occupy streets for the purpose of depositing material thereon during the construction of buildings. A uniform deposit is made in each instance, and a bond filed by the party securing permit to protect the City against possible damage suits in case of accident, due to the negligence of owner or contractor, during life of permits.

The following statement shows in detail the amount of deposits, cost of repairs, amount rebated, etc.:

Amount of cash deposits made.....	\$27,877 00
Amount retained for use of streets.....	4,141 00
Amount rebated to depositors .....	15,187 50
Amount retained on unsettled permits .....	8,548 50
Average amount of cash deposits .....	32 68
Average amount retained for use of streets.....	4 85

## HOUSE-MOVING.

One thousand one hundred and fifty (1,150) permits to move buildings were granted, of which nine hundred and thirty-one (931) were for frame buildings, two hundred and two (202) brick, and seventeen (17) iron, the total frontage aggregating twenty-four thousand two hundred and thirty-one (24,231) lineal feet.

Of this number three hundred and fifty (350) were in the North Division, three hundred and twenty-seven (327) in the South Division and four hundred and seventy-three (473) in the West Division. Five hundred and eight (508) were one story, five hundred and seventy-nine (579) were two stories, fifty-seven (57) were three stories, and six (6) were four stories high.

Total cash receipts, two thousand six hundred and eight dollars (\$2,608.00).

Your attention is respectfully called to the want of equity in the fees charged house-movers for permits to use the streets.

For some years a uniform fee of five dollars (\$5.00) has been collected for moving a building from one lot to another, where street is used, irrespective of the distance traversed, or the weight of the structure moved; and one dollar (\$1.00) for moving a building to another part of the lot upon which the building stands.

Inasmuch as the amount of damage to streets over which buildings are moved depends wholly upon the weight of the building, and the amount of pavement disturbed by the driving of stakes and other

methods necessarily employed by the house-mover in the prosecution of his work, the fees should be graded proportionate to the injury inflicted.

The total receipts from permits issued during the year are but little in excess of the salaries of the permit clerk and inspector (which salaries must be paid from this fund), the surplus being scarcely sufficient to properly repair the streets damaged. The necessity for a more equitable adjustment of charges for permits is apparent.

I respectfully submit that the following scale of fees, if embodied in an ordinance and passed by the Honorable City Council, would obviate the injustice above referred to, and would very materially increase the revenue of this Department, which, under existing ordinances, is yearly diminishing, as fewer houses are moved, in consequence of track elevation, etc.

For moving building from one location to another on the same lot on which the building stands, a permit fee of one dollar (\$1.00) should be charged.

For frame cottage, where street is used .....	\$ 5 00
For frame building of two stories and over .....	10 00
For brick or iron cottage under two stories .....	10 00
For brick or stone building of two stories and over .....	15 00

Under City ordinances at present the fees are limited to one dollar (\$1.00) for moving a building to another part of the same lot upon which the building stands; and a charge of five dollars (\$5.00) for moving a building from one lot to another, where street is used.

To further compensate the City for damage to streets, and to lessen the liability of irresponsible parties embarking in a business which not only entails annoyance to the people along the route, but is fraught with actual danger, I recommend that house-movers be compelled to pay a license fee of fifty dollars (\$50.00) per annum.

## HOUSE-MOVING.

MONTHS, 1885.	Permits issued.	MATERIAL.			STORIES HIGH.				DIVISION.			FRONTAGE.	FEES.		Cash Receipts.
		Frame.	Brick.	Iron.	One.	Two.	Three.	Four.	North.	South.	West.		\$1.00	\$5.00	
January.....	34	31	3	.....	13	20	1	....	11	10	13	633	16	18	\$ 106 00
February.....	33	30	3	.....	17	15	1	...	7	8	18	652	29	4	49 00
March.....	123	102	21	.....	57	63	2	1	34	29	60	2,530	86	37	271 00
April.....	143	123	20	.....	64	73	6	...	39	36	68	3,063	97	46	327 00
May.....	105	89	16	.....	52	52	1	....	29	37	39	2,271	67	38	237 00
June.....	116	90	26	.....	48	61	6	1	43	30	43	2,450	77	39	272 00
July.....	104	88	16	.....	49	46	8	1	32	25	47	2,240	73	31	238 00
August.....	106	91	15	.....	47	55	4	....	38	35	33	2,238	78	26	208 00
September.....	104	83	21	.....	48	54	1	1	24	28	52	2,185	77	27	212 00
October.....	128	92	31	5	56	58	14	....	54	39	35	2,707	85	43	300 00
November.....	101	69	20	12	34	58	7	2	43	32	26	2,050	66	35	241 00
December.....	53	43	10	.....	23	24	6	....	15	18	20	1,162	32	21	137 00
TOTALS.....	1,150	931	202	17	508	579	57	6	330	327	473	24,231	783	365	\$2,608 00



## STREET LAMPS.

The volume of work done by the City Lamp Department during the year 1895 is the largest in the City's history, including some improvements and new features, among which are the manufacturing of boulevard lamps at less cost than the City could purchase them direct from the manufacturers in Philadelphia—the only place where they have heretofore been manufactured. Also the repairing, by this Department, of service pipes, erecting, straightening, raising and placing to grade and proper location of posts, heretofore done by the gas companies, resulting in a large saving to the City.

During the year 1895 there were erected ten thousand four hundred and eighty-five (10,485) new and repaired gas and gasoline lamps, of which six thousand six hundred and ninety-three (6,693) were City gas pattern, two thousand eight hundred and six (2,806) boulevard gas pattern, and the remainder, nine hundred and eighty-six (986), gasoline, which, together with the number of lamps previously erected, gives a grand total of fifty-one thousand one hundred and forty-three (51,143) lamps in service December 31, 1895.

The above grand total, including lights of all descriptions, is made up as follows:

Gas lamps .....	37,853
Gasoline lamps, City.....	3,333
Gasoline lamps, Globe Light & Heat Co.....	8,146
Kerosene lamps.....	194
City plant electric lights .....	1,124
Electric lamps lighted by contract .....	493
Grand total .....	51,143

## GAS LAMPS ERECTED.

New gas lamps placed on posts for Special Assessment Department during the year 1895, and for which credit will be made to the Street Lamp Fund .....	2,585
New gas lamps placed on posts to replace worn-out ones..	3,818
Repaired gas lamps placed on posts .....	3,096
Total number .....	9,499

## GASOLINE LAMPS ERECTED.

New gasoline lamps erected, and iron and wood posts erected for same .....	125
New gasoline lamps placed on posts to replace worn-out lamps .....	460
Repaired gasoline lamps placed on posts .....	401
Total number .....	986



## STREET SIGNS.

There were manufactured and placed in position eleven thousand, five hundred and sixty-three (11,563) street signs of various kinds, as follows:

Blue glass signs, 3x16 inches.....	10,757
Electric signs, 4x18 inches, with opal backs .....	368
Miner lamp signs, 3½x11¾ inches.....	43
Sign frames.....	392
Bulletin boards for City Hall.....	2
Wood sign for Harbor Master.....	1
Total number .....	11,563

The following statement shows in detail the amount of work done and the total expenditure for the year, including the amount paid the different gas companies, pay rolls, supplies, etc.:

Total cost of lamps of all kinds erected for Special Assessment Department .....	\$17,814 00
Total cost of new and repaired gas lamps of all kinds.....	24,023 88

AMOUNT PAID THE DIFFERENT GAS COMPANIES FOR  
REPAIRS ON LAMP POSTS AND SERVICE PIPES  
DURING 1895:

Peoples Gas Light & Coke Company .....	\$4,874 49
Chicago Gas Light & Coke Company.....	3,382 83
Lake Gas Company .....	2,528 39
Hyde Park Gas Company .....	1,587 82
Suburban Gas Company.....	938 53
Consumers Gas Company.....	54 35
Calumet Gas Company.....	14 75
	<hr/> 13,401 16

Total cost of new and repaired gasoline lamps erected, together with the cost of work done by this Department in connection with and incidental to the operations of gasoline lighting and supplies.....	4,823 89
--	----------

Total cost of signs of all kinds put up during 1895.....	3,564 15
--	----------

Grand total of cost of material and labor of all kinds used in the manufacture and repair of street lamps, lamp posts and lamp service pipes, also parts incidental to gasoline operations as well as the manufacture of street name signs, during the year 1895.....	\$63,627 08
---	-------------

Total expenditure during the year 1895.....	63,627 08
---	-----------

Deduct cost of work done on orders from the Special Assessment Department, and for which payment will be made to the lamp fund.....	17,814 00
---	-----------

Net cost of repairs of all kinds done by the Street Lamp Department during the year 1895.....	\$45,813 08
---	-------------

Leaving a credit to this Department of.....	4,186 92
---	----------

I most respectfully suggest that an appropriation be made for changing the signs on sixteen hundred (1,600) streets (the names of which have been changed by ordinance), which will require seventy-eight thousand (78,000) new street signs to be placed upon lamps, and involve an expense of fifteen thousand dollars (\$15,000.00).

The present condition of the iron lamp posts throughout the City requires attention. I therefore recommend that sixteen thousand (16,000) posts, about one-third of the total number in service, be painted during the year 1896. The Lamp Department can do this work for thirty-two hundred dollars (\$3,200.00). The adoption of this system would secure the needed protection by a fresh coat of paint once in three years.

## RAILROAD GATES AND FENCES.

The amount of work done up to date by the various railroad companies in compliance with the Council order of March 26th, 1890, for the erection of gates, fences and lights for the greater safety of the public, is shown in the following table :

NAME.	Fences Constructed—Miles.					Total Miles.	Gates in Operation	Kind of Lights in Use.
	Wall.	Board.	Picket.	Metal.	Wire.			
Chicago & North-Western .....	.46	6.79	10.17	2.55	38.59	58.56	118	Gas.
Illinois Central.....	10.28	.20	.15	1.24	23.00	33.87	32	Electric.
Chicago, Rock Island & Pacific.....	.40	2.00	6.17	....	5.02	13.59	33	Electric.
Chicago, Milwaukee & St. Paul.....	....	....	....	....	18.69	18.69	55	Gas.
Chicago & Northern Pacific.....	....	.84	....	2.75	6.50	9.59	29	Oil.
Pennsylvania Railroad Co.....	....	.08	10.92	.80	2.02	13.82	47	Electric.
Lake Shore & Michigan Southern .....	.76	10.23	....	....	2.40	13.39	31	Electric.
Chicago, Burlington & Quincy .....	....	5.05	....	....	4.74	9.79	34	Gas and oil.
New York, Chicago & St. Louis.. ..	....	....	4.18	..	6.77	10.95	...	Oil.
Baltimore & Ohio.....	....	.60	....	....	5.91	6.51	23	Electric.
Pittsburg, Cincinnati & St. Louis.....	.31	.16	3.01	.63	12.42	16.53	102	Oil and electric.
Atchison, Topeka & Santa Fe.....	....	.41	....	....	5.78	6.19	23	Oil.
Chicago & Grand Trunk.....	....	....	....	....	3.60	3.60	7	Oil.
Chicago & Western Indiana.....	....	....	1.36	....	33.31	34.67	48	Electric.
Wabash .....	....	....	....	....	7.50	7.50	...	Electric.
Chicago & Alton.....	.11	....	.03	....	3.48	3.67	54	Oil and gas.
Union Stock Yards & Transit Co.....	....	....	....	....	....	....	15	Electric.
Totals .....	12.32	25.36	36.04	7.97	173.73	255.92	650	

## STREET RAILWAYS.

The following statements show the number of miles of streets occupied, routes and motive power, of the different Street Railway Companies operating within the City.

## WEST CHICAGO STREET RAILROAD COMPANY.

STREET	FROM	TO	Lineal feet	POWER
Ashland avenue .....	Blue Island avenue.	Twelfth .....	5,280	Electric.
Ashland avenue .....	Lake .....	Clybourn place....	11,352	"
Adams .....	Center avenue .....	The river .....	5,016	"
Adams .....	The river .....	Michigan avenue..	3,960	Horse.
Adams .....	Dearborn .....	Market .....	1,854	Cable.
Armitage avenue .....	W. Forty-fourth...	Milwaukee avenue.	13,140	Electric.
Blue Island avenue .....	Western avenue...	Halsted .....	15,312	Cable.
Blackhawk .....	Noble .....	Holt .....	528	Electric.
Canalport avenue.....	Halsted .....	Canal .....	2,376	"
Canal .....	Canalport avenue..	Harrison .....	6,072	"
Clinton .....	Twelfth .....	Milwaukee avenue.	6,864	Horse.
Center avenue.....	Twenty-first .....	Adams .....	8,976	Electric.
Center avenue.....	Austin avenue .....	Erie .....	1,162	"
California avenue.....	Chicago avenue .....	Division .....	2,640	"
California avenue.....	North avenue .....	Armitage avenue..	2,640	"
Colorado avenue .....	W. Fortieth...	Madison .....	8,712	"
Chicago avenue .....	California avenue.	Milwaukee avenue.	11,352	"
Clybourn place.....	Lincoln .....	Ashland avenue...	1,584	"
Desplaines .....	Harrison .....	Washington .....	3,168	"
Desplaines .....	Washington .....	Milwaukee avenue.	2,376	Cable.
Division .....	California avenue..	Milwaukee avenue.	8,448	Electric.
Dearborn .....	Van Buren .....	Adams .....	950	Cable.
Eighteenth .....	Leavitt .....	The river .....	13,464	Electric.
Fourteenth .....	Robey .....	Canal .....	10,032	"
Fifth avenue.....	Twelfth .....	Randolph .....	6,072	Horse.
Grand avenue .....	W. Fortieth.....	Western avenue...	12,408	Electric.
Halsted .....	The river .....	VanBuren .....	9,768	Cable.
Halsted .....	Van Buren.....	Chicago avenue .....	7,124	Electric.
Harrison .....	Kedzie avenue .....	The river .....	34,880	"
Harrison .....	The river .....	Fifth avenue.....	792	Horse.
Holt .....	Blackhawk .....	North avenue .....	1,320	Electric.
Indiana .....	Western avenue...	Halsted .....	10,560	"
Jefferson .....	Meagher .....	Madison .....	7,392	Horse.
Jefferson .....	Madison .....	Washington .....	528	Cable.
Kedzie avenue .....	Twelfth .....	Madison .....	5,280	Electric.
Leavitt .....	Blue Island avenue.	Eighteenth .....	3,960	"
Leavitt .....	Indiana .....	Chicago avenue .....	1,848	"
Lake .....	Forty-eighth.....	The river .....	29,040	"
Lake .....	The river .....	State .....	2,640	"
Madison .....	Fortieth .....	Jefferson .....	21,912	Cable.
Madison .....	Jefferson .....	Fifth avenue.....	2,640	Horse.
Madison .....	Fifth avenue.....	State .....	1,584	Cable.
Milwaukee avenue.....	Desplaines .....	Armitage avenue..	15,840	"
Milwaukee avenue.....	Armitage avenue..	Logan Square....	5,808	Electric.
Market .....	Adams .....	Van Buren .....	485	Cable.
North avenue .....	Fortieth .....	Milwaukee avenue.	13,200	Electric.
Noble .....	Milwaukee avenue.	Blackhawk .....	2,112	"
Ogden avenue.....	Fortieth .....	Randolph .....	20,856	"



## WEST CHICAGO STREET RAILROAD COMPANY—CONTINUED.

STREET	FROM	TO	Lineal feet	POWER
Paulina.....	Twelfth.....	Lake.....	6,600	Electric.
Robey.....	Blue Island avenue.	Eighteenth.....	3,168	"
Robey.....	Fourteenth.....	Milwaukee avenue.	17,160	"
Randolph.....	Union Park.....	The river.....	7,920	"
Randolph.....	The river.....	State.....	2,640	Horse.
Sangamon.....	Adams.....	Austin avenue.....	3,960	Electric.
Twenty sixth.....	Fortieth.....	Western avenue.....	10,560	"
Twenty-first.....	Douglas boulevard.	Halsted.....	13,990	"
Twelfth.....	Fortieth.....	The river.....	24,552	"
Taylor.....	Western avenue.....	The river.....	13,728	"
Van Buren.....	Market.....	Dearborn.....	1,848	Cable.
Van Buren.....	Kedzie avenue.....	Halsted.....	15,840	Electric.
Van Buren.....	Halsted.....	Clinton.....	1,689	Cable.
Van Buren.....	Clinton.....	State.....	3,696	Horse.
Western avenue.....	Blue Island avenue.	Milwaukee avenue.	25,872	Electric.
Washington.....	Desplaines.....	State.....	4,488	Cable.
Total.....			507,408	96.10 miles.

## NORTH CHICAGO STREET RAILROAD COMPANY.

STREET	FROM	TO	Lineal feet	POWER
Ashland avenue.....	Belmont avenue...	Graceland avenue..	5,280	Electric.
Belmont avenue.....	Robey.....	Lincoln avenue.....	2,640	"
Clark.....	Washington.....	S. Water.....	1,320	Horse.
Clark.....	South Water.....	Kinzie.....	422	Electric.
Clark.....	Kinzie.....	Illinois.....	633	Horse.
Clark.....	Illinois.....	Dewey court.....	15,840	Cable.
Clark.....	Dewey court.....	Ridge road.....	23,760	Electric.
Clark.....	Ridge road.....	Church road.....	3,168	Horse.
Clybourn avenue.....	Division.....	Cooper.....	10,560	Electric.
Clybourn avenue.....	Cooper.....	Belmont avenue...	7,920	"
Chicago avenue.....	Milwaukee avenue.	Clark.....	6,600	"
Center.....	Racine avenue.....	Lincoln avenue.....	5,280	"
Center.....	Lincoln avenue.....	Clark.....	792	Cable.
Division.....	Clybourn avenue..	Wells.....	1,320	"
Division.....	Milwaukee avenue.	State.....	10,032	Electric.
Dearborn.....	Polk.....	Kinzie.....	6,072	Horse.
Evanston avenue.....	Clark.....	Graceland avenue..	8,184	"
Fullerton avenue.....	Milwaukee avenue.	Lincoln avenue.....	13,828	Electric.
Graceland avenue.....	Clark.....	Evanston avenue..	3,168	Horse.
Graceland avenue.....	Ashland avenue...	Clark.....	1,848	Electric.
Garfield avenue.....	Racine avenue.....	Lincoln avenue.....	4,646	"
Halsted.....	Chicago avenue..	Graceland avenue..	21,120	"
Illinois.....	Market.....	Wells.....	792	"
Illinois.....	Wells.....	Clark.....	950	Cable.
Kinzie.....	Market.....	State.....	2,270	Electric.
Larrabee.....	Chicago avenue..	Webster avenue...	9,240	Horse.
Lincoln avenue.....	Center.....	Wrightwood avenue	5,544	Cable.
Lincoln avenue.....	Wrightwood av....	Belmont avenue...	5,544	Electric.
La Salle.....	Monroe.....	Illinois.....	3,801	Cable.
Monroe.....	La Salle.....	Dearborn.....	792	"

## NORTH CHICAGO STREET RAILROAD COMPANY—CONTINUED.

STREET	FROM	TO	Lineal feet	POWER
Michigan .....	Market .....	Wells .....	792	Electric.
Market .....	Kinzie .....	Division .....	5,280	"
North avenue .....	Milwaukee avenue ..	Clark .....	12,408	"
Roscoe .....	Western avenue ..	Robey .....	2,640	"
Robey .....	Belmont avenue ..	Roscoe .....	1,320	"
Racine avenue ..	Center .....	Fullerton avenue ..	2,640	"
State .....	Lake .....	Division .....	7,600	"
Sedgwick .....	Chicago avenue ..	Center .....	7,920	"
Sheffield avenue ..	Wrightwood av. ....	Clark .....	5,280	"
Southport avenue ..	Clybourn avenue ..	Clark .....	12,936	"
Webster avenue ..	Racine avenue ..	Lincoln avenue ..	3,960	"
Wells .....	Randolph .....	Illinois .....	2,376	Horse.
Wells .....	Illinois .....	Wisconsin .....	9,240	Cable.
Total .....			255,340	48.36 miles.

## OGDEN STREET RAILWAY COMPANY.

STREET	FROM	TO	Lineal feet	POWER
Central avenue ..	Twenty-fifth .....	Twenty-sixth .....	264	Electric.
W. Forty-eighth .....	Madison .....	Twenty-fifth .....	12,936	"
Ridgeland avenue .....	Twenty-sixth .....	Thirty-first .....	2,640	"
Twenty-fifth .....	Central avenue ..	Forty-eighth .....	5,280	"
Twenty-sixth .....	Ridgeland avenue ..	Central avenue ..	5,280	"
Thirty-first .....	Harlem avenue ..	Ridgeland avenue ..	5,280	"
Total .....			31,680	6 miles.

## NORTH SIDE ELECTRIC STREET RAILWAY COMPANY.

STREET	FROM	TO	Lineal feet	POWER
Clybourn place .....	Clybourn avenue ..	Elston avenue .....	2,270	Electric.
Crosby .....	Larrabee .....	Division .....	1,848	"
Erie .....	Franklin .....	The river .....	2,259	"
Elm .....	Franklin .....	Crosby .....	2,687	"
Franklin .....	Kinzie .....	Elm .....	5,000	"
Kingsbury .....	Erie .....	Chicago avenue ..	422	"
Total .....			14,486	2.74 miles.

## CHICAGO NORTH SHORE STREET RAILWAY COMPANY.

STREET	FROM	TO	Lineal feet	POWER
Church road .....	Evanston avenue ..	Clark .....	2,640	Electric.
Chicago avenue .....	Church road .....	.....	18,200	"
Evanston avenue .....	Grace land avenue.	Church road .....	21,120	"
Sherman avenue. ....	.....	.....	5,280	"
Total .....			42,240	8 miles.

## NORTH CHICAGO ELECTRIC RAILWAY COMPANY.

STREET	FROM	TO	Lineal feet	POWER
Milwaukee avenue.....	Logan square .....	Lawrence avenue..	21,120	Electric.
Lincoln avenue .....	Belmont avenue....	Foster.....	10,240	"
Total .....			31,360	6.01 miles.

## CHICAGO &amp; JEFFERSON URBAN TRANSIT COMPANY.

STREET	FROM	TO	Lineal feet	POWER
Fulton .....	Western avenue ...	Ashland avenue ..	5,280	Electric.
Fulton .....	Ashland avenue....	Morgan .....	3,960	"
Morgan .....	Monroe .....	Fulton .....	2,876	"
Monroe.....	Morgan .....	Canal.....	3,432	"
Total .....			15,048	2.85 miles.

## CHICAGO ELECTRIC TRANSIT COMPANY.

STREET	FROM	TO	Lineal feet	POWER
Belmont avenue .....	Ashland avenue....	Halsted .....	5,280	Electric.
Belmont avenue .....	Milwaukee avenue.	Robey .....	12,144	"
Elston avenue.....	Milwaukee avenue.	Montrose blvd....	80,782	"
Total .....			48,206	9.18 miles.



## LAKE STREET ELEVATED RAILROAD COMPANY.

STREET	FROM	TO	Lineal feet	POWER
Lake .....	State .....	W. Fifty-second...	34,320	Steam.
Market .....	Lake .....	Madison .....	1,350	"
Total .....			35,670	6.75 miles.

## METROPOLITAN WEST SIDE ELEVATED RAILROAD COMPANY.

BRANCH	FROM	TO	Lineal feet	POWER
Main .....	Franklin .....	Forty-eighth .....	26,400	Electric.
Northwestern .....	Congress and Paulina ..	Logan Square .....	23,428	"
Northwestern .....	Robey and Milwaukee av ..	Lawndale avenue ..	11,291	"
Total .....			61,119	11.2 miles.

## CHICAGO GENERAL RAILWAY COMPANY.

STREET	FROM	TO	Lineal feet	POWER
Homan avenue .....	Twenty-second ...	Twenty-fifth .....	1,769	Electric.
Kedzie avenue .....	Twenty-second ...	Thirty-first .....	5,280	"
Lawndale avenue .....	Twenty-second ...	Twenty-eighth .....	3,960	"
Rockwell .....	Nineteenth .....	Twenty-sixth .....	4,620	"
W. Twenty-second ...	The river .....	W. Fortieth .....	22,704	"
W. Twenty-fifth .....	Rockwell .....	Lawndale avenue ..	7,260	"
Total .....			45,593	8.61 miles.

## CICERO &amp; PROVISIO STREET RAILWAY COMPANY.

STREET	FROM	TO	Lineal feet	POWER
Chicago avenue .....	West Forty-eighth.	W. Fifty-second...	2,640	Electric.
W. Forty-eighth .....	Madison .....	Chicago avenue...	5,280	"
Lake .....	West Forty-eighth.	W. Fifty-second...	2,640	"
Madison .....	West Fortieth .....	W. Fifty-second...	7,920	"
Total .....			18,480	3.50 miles.



## SOUTH CHICAGO CITY RAILWAY COMPANY.

STREET	FROM	TO	Lineal feet	POWER
Buffalo avenue .....	Eighty-seventh. . .	Ninety-second . . .	3,326	Electric.
Coles avenue. ....	Seventy-first . . . .	Seventy-ninth. . . .	6,230	"
Cheltenham place . . . .	Railroad avenue. . .	Coles avenue. ....	422	"
Commercial avenue. . . .	Seventy-ninth . . . .	100th . . . . .	10,560	"
Ewing avenue. ....	Harbor avenue. . . .	106th . . . . .	9,873	"
Eighty-third . . . . .	Ontario avenue . . .	Superior avenue. . .	317	"
Eighty-seventh . . . . .	Superior avenue . .	Buffalo avenue . . .	211	"
Indianapolis avenue . . .	Ewing avenue. ....	State line. ....	4,805	"
Notre Dame avenue . . .	Muskegon avenue . .	100th . . . . .	2,376	"
Ninety-second. ....	Commercial avenue	Harbor avenue. ....	2,165	"
Ontario avenue. ....	Seventy-ninth . . . .	Eighty-third . . . .	2,640	"
104th. ....	Torrence avenue . .	Muskegon avenue . .	1,267	"
106th. ....	Torrence avenue . .	State line. ....	9,557	"
Superior avenue. ....	Eighty-third . . . .	Eighty-seventh. . .	2,640	"
Seventieth. ....	Yates avenue . . . .	Stony Island av. . .	.....	"
Seventy-first . . . . .	Yates avenue . . . .	Coles avenue . . . .	475	"
Seventy-fifth . . . . .	Stony Island av. . .	Lake Michigan. . . .	8,870	"
Seventy-ninth . . . . .	Stony Island av. . .	Ontario avenue. . .	10,613	"
Stony Island avenue . . .	Sixty-fourth . . . .	Seventy-ninth. . . .	9,873	"
Torrence avenue . . . .	104th . . . . .	106th . . . . .	1,320	"
Yates avenue. ....	Sixty-eighth. ....	Seventy-first . . . .	1,953	"
Total .....			89,493	16 95 miles.

## CHICAGO &amp; SOUTH SIDE RAPID TRANSIT RAILROAD COMPANY.

STREET	FROM	TO	Lineal feet	POWER
Alley .....	Congress .....	Sixty-third . . . . .	34,980	Steam.
Sixty-third. ....	Calumet avenue. . .	Stony Island av. . .	8,360	"
Total .....			43,340	8.21 miles.

## CALUMET ELECTRIC STREET RAILWAY COMPANY.

STREET	FROM	TO	Lineal feet	POWER
Cottage Grove avenue. .	Seventy-second . . .	Ninety-fifth. . . .	15,312	Electric.
Drexel avenue . . . . .	Ninety-third . . . .	Ninety-fourth . . . .	528	"
Exchange avenue. ....	Ninety-third . . . .	S. Chicago avenue. .	528	"
Erie avenue. ....	Ninety-first . . . .	Ninety-third . . . .	1,056	"
Eighty-ninth. ....	Mackinaw avenue . .	The Strand. ....	528	"
Halsted . . . . .	119th . . . . .	121st. ....	1,584	"
Harbor avenue . . . . .	Ninety third . . . .	Mackinaw avenue . .	1,056	"
Kensington avenue . . . .	Michigan avenue . .	I. C. R. R. ....	2,112	"
Michigan avenue . . . .	Ninety-fifth. ....	124th . . . . .	19,008	"

## CALUMET ELECTRIC STREET RAILWAY COMPANY—CONTINUED.

STREET	FROM	TO	Lineal feet	POWER
Mackinaw avenue .....	Harbor avenue .....	Eighty-ninth.....	528	Electric.
Madison avenue .....	S. Chicago avenue.....	Seventy-fifth.....	1,056	"
Ninety-first .....	S. Chicago avenue.....	Erie avenue.....	2,112	"
Ninety-third .....	Cottage Grove av. ....	Harbor avenue.....	13,728	"
Ninety-fifth .....	Cottage Grove av. ....	Michigan avenue.....	4,224	"
Ninety-fifth .....	S. Chicago avenue.....	Avenue "M" .....	2,112	"
115th.....	Michigan avenue .....	I. C. R. R. ....	2,112	"
116th.....	Michigan avenue .....	Wentworth avenue.....	3,696	"
119th.....	Michigan avenue .....	Halsted .....	5,808	"
Stony Island avenue .....	Sixty-fourth .....	Ninety-seventh.....	21,648	"
S. Chicago avenue.....	Noble court.....	Ninety-fifth.....	18,480	"
S. Chicago av. (leased).....	Vincennes avenue.....	Cottage Grove av. ....	2,640	"
Sixty-seventh (leased).....	Cottage Grove av. ....	Vernon avenue.....	2,640	"
Sixty-seventh .....	Stony Island av .....	Cottage Grove av. ....	5,280	"
Seventy-fifth .....	Stony Island av .....	C., R. I. & P. Ry. ....	13,728	"
Vernon avenue (leased).....	Sixty-seventh .....	Sixty-third.....	2,640	"
Vincennes av. (leased).....	Sixty-seventh .....	S. Chicago avenue.....	528	"
Wentworth avenue .....	116th .....	119th .....	1,584	"
Total.....			146,256	27.7 miles.

## CHICAGO CITY RAILWAY COMPANY.

STREET	FROM	TO	Lineal feet	POWER
Archer avenue .....	Clark .....	State.....	970	Horse.
Archer avenue .....	Twentieth .....	Thirty-eighth .....	13,300	Electric.
Ashland avenue .....	Archer avenue .....	Sixty-ninth .....	25,250	"
Butler .....	Thirtieth .....	Thirty-first .....	660	Horse.
Cottage Grove avenue.....	Twenty-second.....	Seventy-first .....	32,497	Cable.
Cottage Grove avenue.....	Sixty-first .....	Sixty-third .....	1,325	Electric.
Clark.....	Washington .....	Twenty-second.....	10,985	"
Eighteenth .....	Wabash avenue .....	Indiana avenue.....	870	Horse.
Forty-third .....	Oakwald avenue.....	State.....	7,856	Electric.
Forty-seventh .....	Lake avenue.....	Western avenue.....	25,072	"
Fifty-first .....	Grand boulevard .....	State.....	2,620	"
Fifty-fifth .....	Cottage Grove av. ....	Lake avenue.....	5,296	Cable.
Fifty-fifth .....	Lake avenue.....	Jefferson .....	1,640	"
Hanover.....	Twelfth-ninth .....	Thirtieth .....	660	Horse.
Hanover.....	Archer avenue.....	Twenty-ninth .....	3,370	Electric.
Halsted .....	The river .....	Sixty-ninth .....	29,245	"
Indiana avenue.....	Eighteenth .....	Thirty-ninth .....	16,160	Horse.
Indiana avenue.....	Thirty-ninth .....	Fifty-first .....	7,926	Electric.
Lake .....	State .....	Wabash avenue.....	450	Cable.
Madison .....	State .....	Michigan avenue.....	880	"
Michigan avenue.....	Madison .....	Randolph .....	870	"
Pitney court.....	Thirty-first .....	Archer avenue.....	580	Electric.
Randolph .....	Wabash avenue .....	Michigan avenue.....	460	Cable.
Root .....	State.....	Union Stock Yards .....	5,303	Electric.
State.....	Lake.....	Sixty-third .....	38,280	Cable.
State.....	Root .....	Forty-third .....	980	Electric.
State.....	Sixty-first .....	Sixty-ninth .....	5,309	"

## CHICAGO CITY RAILWAY COMPANY—CONTINUED.

STREET	FROM	TO	Lineal feet	POWER
Stanton avenue.....	Thirty-fifth . . . .	Thirty-ninth.....	2,649	Horse.
South Chicago avenue .	Seventy-first . . . .	Seventy-fifth.....	3,750	"
South Park court.....	Sixtieth . . . . .	Sixty-first . . . . .	870	Electric.
Sixty-first.....	S. Park court . . . .	Wentworth avenue..	10,921	"
Sixty-third.....	Stony Island av . . .	Cottage Grove av..	5,360	"
Sixty-third.....	Wentworth avenue	Ashland avenue . . .	9,262	"
Sixty-ninth.....	State.....	Leavitt . . . . .	14,596	"
Twenty-second . . . . .	State.....	Cottage Grove av..	1,320	Cable.
Twenty-second.....	State.....	The river.....	3,517	Horse.
Twenty-sixth.....	Cottage Grove av..	Halsted . . . . .	7,958	Electric.
Twenty-ninth . . . . .	Hanover . . . . .	Wallace . . . . .	890	"
Thirtieth . . . . .	Hanover . . . . .	Butler.....	330	Horse
Thirty-first . . . . .	Lake Park avenue..	Pitney court . . . . .	13,744	Electric.
Thirty-fifth . . . . .	Stanton avenue . . .	Cottage Grove av..	1,050	Horse.
Thirty-fifth . . . . .	Michigan avenue..	Sacramento avenue	20,808	Electric.
Thirty-eighth . . . . .	Archer avenue . . . .	Kedzie avenue . . . .	4,770	"
Thirty-ninth . . . . .	Cottage Grove av..	Halsted . . . . .	10,638	"
Ullman.....	Thirty-first . . . . .	Thirty-fifth . . . . .	2,657	Horse
Van Buren.....	Clark . . . . .	Wabash avenue . . .	1,280	"
Vincennes avenue . . . .	Sixty-ninth . . . .	Eighty-first . . . . .	8,414	Electric.
Wabash avenue . . . . .	Lake.....	Twenty-second.....	11,900	Cable.
Wallace . . . . .	Twenty-sixth . . . .	Twenty-ninth . . . .	1,320	Horse.
Wallace . . . . .	Twenty-ninth.....	Root . . . . .	8,275	Electric.
Wentworth avenue.....	Archer avenue . . . .	Seventy-third . . . .	33,737	"
Total .....			418,630	79.28 miles.



NUMBER OF MILES OF STREETS OCCUPIED BY HORSE, CABLE  
ELECTRIC AND ELEVATED RAILWAYS IN SERVICE  
DECEMBER 31, 1895.

CORPORATIONS.	Cable.	Horse.	Electric.	Elevated.		Total.
				Steam.	Electric	
Chicago City Railway Co. . . . .	17.72	6.79	54.75			79.26
West Chicago Street Railroad Co. . . . .	14.98	6.95	74.17			96.10
North Chicago Street Railroad Co. . . . .	9.25	4.72	34.39			48.36
Calumet Electric Street Railway Co. . . . .			27.7			27.7
Cicero & Proviso Electric Co. . . . .			3.5			3.5
Chicago North Shore Street Railway. . . . .			8.00			8.00
South Chicago City Railway Co. . . . .			16.95			16.95
Chicago General Railway Co. . . . .			8.61			8.61
Chicago Electric Transit Co. . . . .			9.13			9.13
North Chicago Electric Railway Co. . . . .			6.75			6.75
Chicago & S. S. Rapid Transit. . . . .				8.21		8.21
Lake Street Elevated Railroad Co. . . . .				6.75		6.75
Metropolitan L. . . . .					11.2	11.2
*Northwestern Elevated. . . . .						
Ogden Street Railway Co. . . . .			6.00			6.00
Chicago & Jefferson Urban Transit. . . . .			2.85			2.85
North Side Electric Street Railway. . . . .			2.84			2.84
Totals. . . . .	41.95	18.46	255.64	14.96	11.2	342.21

\* In course of construction.

In conclusion, I desire to bear testimony to the prompt and efficient aid rendered this Bureau by the Police Department in reporting violations and in the enforcement of the ordinances regulating the use of sidewalk space and streets.

I desire also to record my appreciation of the uniform courtesy extended me by your Department in the many perplexing incidents inseparable from official life, and to thank the heads of the several departments of this Bureau, and all subordinates for fidelity to duty.

Respectfully submitted,

R. J. MacDONALD,

*Superintendent of Streets.*



1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

REPORT OF THE  
BUREAU OF  
Street and Alley Cleaning  
CITY OF CHICAGO



BUREAU OF

# STREET AND ALLEY CLEANING

---

HON. W. D. KENT,

*Commissioner of Public Works.*

DEAR SIR: Herewith I submit the report of this Bureau for the year ending December 31, 1895:

Following is a statement of the expenses of the Bureau: The total appropriation for the year was \$665,900. Of this amount, there was expended during the first three months, up to April 1, before this administration came in power, the sum of \$259,134.95, or more than one-third of the entire appropriation, leaving but \$406,765.05 to carry on the work for the remaining nine months.

#### STREET CLEANING.

The total cost of street cleaning for the year was \$271,283.77; of this amount \$120,412.88 was expended during the first three months.

#### REMOVAL OF GARBAGE.

The total cost of the removal of garbage for the year was \$385,218.54; of this amount \$98,282.93 was expended during the first three months.

#### REMOVAL OF DEAD ANIMALS.

Total cost of the removal of dead animals for the year was \$37,500.00.

#### WARD INSPECTORS.

Total cost of ward inspectors for the year was \$33,991.63.

#### OFFICE SALARY.

Total amount of office salaries for the year was \$9,452.68.

The total amount of contracts by wards for nine months was \$240,014, or \$26,668.22 per month.



In averaging the expense of removing garbage it was found that each team cost \$4.23 per day. 50,326 teams cost \$213,145.78. The same number of teams at \$3.50 per day would cost \$176,141.00, showing a difference of \$37,004.78.

The receipts from dumps amounted to \$5,467.05. During the year, 6,132 miles of streets were cleaned at an expense of \$18.50 per mile, making a total of \$113,442.00.

The total expense to the City for removing snow was \$8,578.42.

During the year, 9,854 dead animals were removed from the City. Of this number 3,795 were horses, 93 cows, 5,714 dogs and 252 small animals.

Respectfully,

J. C. W. RHODE,

*Superintendent.*

REPORT OF THE

**Bureau of Special Assessments**

CITY OF CHICAGO



# BUREAU OF SPECIAL ASSESSMENTS.

---

HON. WM. D. KENT,  
*Commissioner of Public Works.*

DEAR SIR:—I submit herewith, in tabular form, a statement of special assessments made in this department during the year 1895, with a summary of the estimated cost of the same; also the amount of special assessments made each year during the past thirty-five years.

Respectfully,

H. J. JONES,  
*Sup't of Special Assessments.*



## MACADAMIZED PAVEMENTS—CONTINUED.

No. of War'nt.	IMPROVEMENT.	NAME OF STREET.	FROM	TO	AMOUNT.
20942	C. F. and M.	Melrose	Lake Shore drive	East line of lot 39, block 1	\$ 1,512 74
20943	C. F. and M.	Pine Grove avenue	Irving Park avenue	180 ft. north of Byron	3,000 00
20945	C. F. and M.	Twenty-third	Central Park boulevard	Homan avenue	6,000 00
20946	C. F. and M.	South Park avenue	Sixtieth	Sixty-third	8,000 00
21131	C. F. and M.	Montrose boulevard	Evanston avenue	Chicago & Evanston R. R.	3,034 86
21175	C. F. and M.	Stratford place	Present eastern terminus	West line of Lake Shore drive	742 18
21176	C. F. and M.	Hawthorne place	Eastern terminus	Lake Shore drive	1,023 18
21180	C. F. and M.	Roscoe	Present eastern terminus	West line of Lake Shore drive	1,766 56
21191	C. G. and M.	Sixty-second	Madison avenue	Ill. Cent. R. R.	1,284 68
	Total				\$ 257,029 35

## VITRIFIED BRICK PAVEMENT.

No. of War'nt.	IMPROVEMENT.	NAME OF STREET.	FROM	TO	AMOUNT.
20133	G. and P.	Illinois	North Clark	Wells	\$ 5,365 37
20174	C. G. and P.	Milwaukee avenue	West Lake	West Chicago avenue	50,881 95
20230	C. F. and P.	Ashland avenue	Fifty-ninth	Sixty-third	29,576 18
20411	G. and P.	LaSalle	Randolph	Madison	3,150 99
20538	C. F. and P.	Forty-eighth	Vincennes avenue	Grand Boulevard	7,000 00
20708	C. G. and P.	Paulina	Berteau	Graceland avenue	11,003 05
20871	G. and P.	Peck court	State	Michigan avenue	7,361 52
	Total				\$ 114,339 06

## GRANITE BLOCK PAVEMENT.

No. of War'nt.	IMPROVEMENT	NAME OF STREET	FROM	TO	AMOUNT.
20588	Platg. G. Walls, G. and P.	Eagle	Desplaines	Union	\$ 3,824 10
20941	C. G. and P.	Twenty-seventh	Cottage Grove avenue	Ill. Cent. R. R.	7,520 40

21315	C. F. and P. ....	North Water.....	West line of St. Clair.....	East line of west half of lot 11.	20,896 80
21340	Phig. G. Walls, G. and P. ....	Jefferson .....	Randolph .....	Madison.....	14,410 13
21348	G. and P. ....	Eagle .....	Union.....	Halsted.....	5,144 55
Total.....					\$ 51,795 98

## ALLEYS—WOODEN BLOCK PAVEMENT.

No. of Ward.	IMPROVEMENT	FROM	BETWEEN	AMOUNT.
19908	C. G. and P. ....	Jackson to Van Buren.....	Francisco and Stevens.....	\$ 1,879 87
19992	C. G. and P. ....	Sibley to east terminus .....	Harrison and Vernon Park place .....	478 50
19995	C. G. and P. ....	Leavitt to Oakley avenue .....	Wilmot and Milwaukee avenue.....	2,005 51
20180	C. F. and P. ....	Greshaw to Twelfth .....	Spaulding and Homan avenue .....	2,897 11
20183	C. G. and P. ....	Forty-fourth to Forty-fifth .....	Greenwood and Sidney avenues.....	1,114 65
20184	C. F. and P. ....	Larrabee to Willow .....	Howe and Center .....	4,876 98
20185	C. G. and P. ....	Running south from Myrtle place and west to .....	Halsted, Block 2, School Section addition.....	493 08
20186	C. G. and P. ....	Block 28, School Section addition.....	.....	331 58
20187	C. G. and P. ....	Block 40, Carpenter's addition.....	.....	341 64
20188	G. G. and P. (N. E. and W.) .....	Block 30, Carpenter's addition.....	.....	919 44
20189	G. G. and P. (N. and S.) .....	Block 48, Carpenter's addition.....	.....	710 91
20240	C. G. and P. ....	Henry to Newberry avenue.....	West Fourteenth and Halsted.....	935 19
20245	G. F. and P. ....	Hamilton to West Jackson .....	Leavitt and West Adams .....	1,528 15
20248	C. G. and P. ....	Canal to Clinton .....	Randolph and Washington .....	596 04
20249	G. G. and P. (N. & W. & S.) .....	Block 20, Carpenter's addition.....	.....	993 67
20270	C. G. and P. ....	Thirty-ninth to Armour avenue .....	Fortieth and Dearborn .....	1,251 99
20391	C. G. and P. ....	Oakley avenue to Western avenue .....	Milwaukee avenue and Wilmot.....	2,028 29
20400	C. G. and P. ....	North avenue to 475 ft. north .....	Dayton and Halsted .....	1,408 65
20401	C. F. and P. ....	Locust to Pearson .....	Franklin and Market.....	2,874 18
20402	C. G. and P. ....	State to Dearborn.....	Goethe and 411 ft. north .....	1,322 84
20403	C. G. and P. ....	Seminary to Clifton .....	Webster and Garfield avenue.....	1,993 28
20414	C. G. and P. ....	Willow to Clay .....	Sheffield and Bissell .....	205 16
20417	C. F. and P. ....	Twenty-eighth place to Swift place .....	Wentworth and Fifth avenues.....	1,421 52
20489	C. G. and P. ....	First east of Halsted.....	Adams and Quincy .....	363 10
20517	C. G. and P. ....	Saugamon to Morgan .....	Etc .....	432 55
20535	C. F. and P. ....	White House place to Thirty-first .....	.....	1,513 37
20584	C. F. and P. ....	St. Louis avenue to Homan avenue .....	Monroe and Adams .....	1,987 21
20585	C. F. and P. ....	St. Louis avenue to Central Park avenue .....	Madison and Monroe .....	2,327 04
20595	C. F. and P. ....	Willow to Orchard .....	North avenue and Burling.....	4,527 29
20596	C. G. and P. ....	Western avenue to Campbell avenue .....	Harrison and Flournoy.....	1,603 44



## MACADAMIZED PAVEMENTS—CONTINUED.

No. of W'ar'nt.	IMPROVEMENT.	NAME OF STREET.	FROM	TO	AMOUNT.
20942	C. F. and M.	Melrose	Lake Shore drive.	East line of lot 39, block 1.	\$ 1,512 74
20943	C. F. and M.	Pine Grove avenue	Irving Park avenue.	180 ft. north of Byron	3,000 00
20945	C. F. and M.	Twenty-third	Central Park boulevard	Homan avenue	6,000 00
20946	C. F. and M.	South Park avenue	Sixtieth	Sixty-third	8,000 00
21131	C. F. and M.	Montrose boulevard	Evanston avenue	Chicago & Evanston R. R.	3,034 86
21175	C. F. and M.	Stratford place	Present eastern terminus	West line of Lake Shore drive.	742 18
21176	C. F. and M.	Hawthorne place	Eastern terminus	Lake Shore drive	1,023 18
21180	C. F. and M.	Roscoe	Present eastern terminus	West line of Lake Shore drive.	1,766 56
21191	C. G. and M.	Sixty-second	Madison avenue	Ill. Cent. R. R.	1,384 68
	Total				\$ 257,029 35

## VITRIFIED BRICK PAVEMENT.

No. of W'ar'nt.	IMPROVEMENT.	NAME OF STREET.	FROM	TO	AMOUNT.
20133	G. and P.	Illinois	North Clark	Wells	\$ 5,365 37
20174	C. G. and P.	Milwaukee avenue	West Lake	West Chicago avenue	50,881 95
20230	C. F. and P.	Ashland avenue	Fifty-ninth	Sixty-third	29,576 18
20411	G. and P.	LaSalle	Randolph	Madison	3,150 99
20538	C. F. and P.	Forty-eighth	Vincennes avenue	Grand Boulevard	7,000 00
20708	C. G. and P.	Paulina	Berteau	Graceland avenue	11,003 05
20871	G. and P.	Peck court	State	Michigan avenue	7,361 52
	Total				\$ 114,839 06

## GRANITE BLOCK PAVEMENT.

No. of W'ar'nt.	IMPROVEMENT	NAME OF STREET	FROM	TO	AMOUNT.
20588	Platg. 6, Walls, 6, and P.	Eagle	Desplaines	Union	\$ 3,824 10
20941	C. G. and P.	Twenty-seventh	Cottage Grove avenue	Ill. Cent. R. R.	7,520 40

21315	C. F. and P. ....	North Water.....	West line of St. Clair.....	East line of west half of lot 11.	20,896 80
21340	Plg. O. Walls, G. and P. ....	Jefferson .....	Randolph .....	Madison.....	14,410 13
21348	G. and P. ....	Eagle .....	Union.....	Halsted.....	5,144 55
Total.....					\$ 51,795 98

## ALLEYS—WOODEN BLOCK PAVEMENT.

No. of Warr't.	IMPROVEMENT	FROM	BETWEEN	AMOUNT.
19968	C. G. and P. ....	Jackson to Van Buren.....	Francisco and Stevens.....	\$ 1,879 87
19992	C. G. and P. ....	Sibley to east terminus.....	Harrison and Vernon Park place.....	478 50
19995	C. G. and P. ....	Leavitt to Oakley avenue.....	Wilmot and Milwaukee avenue.....	2,005 51
20130	C. F. and P. ....	Grenshaw to Twelfth.....	Spaulding and Homan avenue.....	2,897 11
20183	C. G. and P. ....	Forty-fourth to Forty-fifth.....	Greenwood and Sidney avenues.....	1,114 65
20184	C. F. and P. ....	Larabee to Willow.....	Howe and Center.....	4,876 98
20185	C. G. and P. ....	Running south from Myrtle place and west to	Halsted, Block 2, School Section addition.....	493 08
20186	C. G. and P. ....	Block 28, School Section addition.....		331 58
20187	C. G. and P. ....	Block 40, Carpenter's addition.....		341 64
20188	G. G. and P. (N. E. and W.) ..	Block 30, Carpenter's addition.....		919 44
20189	G. G. and P. (N. and S.) ..	Block 48, Carpenter's addition.....		710 91
20240	C. G. and P. ....	Henry to Newberry avenue.....	West Fourteenth and Halsted.....	935 19
20245	G. F. and P. ....	Hamilton to West Jackson.....	Leavitt and West Adams.....	1,528 15
20248	C. G. and P. ....	Canal to Clinton.....	Randolph and Washington.....	596 04
20249	G. G. and P. (L. & W. & N. & S.)	Block 20, Carpenter's addition.....		993 67
20270	C. G. and P. ....	Thirty-ninth to Armour avenue.....	Fortieth and Dearborn.....	1,251 99
20391	C. G. and P. ....	Oakley avenue to Western avenue.....	Milwaukee avenue and Wilmot.....	2,028 29
20400	C. G. and P. ....	North avenue to 475 ft. north.....	Dayton and Halsted.....	1,408 65
20401	C. F. and P. ....	Locust to Pearson.....	Franklin and Market.....	2,874 18
20402	C. G. and P. ....	State to Dearborn.....	Goethe and 411 ft. north.....	1,322 84
20403	C. G. and P. ....	Seminary to Clifton.....	Webster and Garfield avenue.....	1,993 28
20414	C. G. and P. ....	Willow to Clay.....	Sheffield and Bissell.....	305 16
20417	C. F. and P. ....	Twenty-eighth place to Swift place.....	Wentworth and Fifth avenues.....	1,421 52
20489	C. G. and P. ....	First east of Halsted.....	Adams and Quincy.....	363 10
20517	C. G. and P. ....	Saugamon to Morgan.....	Etc.....	432 55
20535	C. F. and P. ....	White House place to Thirty-first.....	Monroe and Adams.....	1,513 37
20584	C. F. and P. ....	St. Louis avenue to Homan avenue.....	Madison and Monroe.....	1,987 21
20585	C. F. and P. ....	St. Louis avenue to Central Park avenue.....	North avenue and Burling.....	2,327 04
20595	C. F. and P. ....	Willow to Orchard.....	Harrison and Flournoy.....	4,527 29
20596	C. G. and P. ....	Western avenue to Campbell avenue.....		1,603 44



## ALLEYS—WOODEN BLOCK PAVEMENT—CONTINUED.

No. of W <sup>ar</sup> nt.	IMPROVEMENT	FROM	BETWEEN	AMOUNT.
20778	C. G. and P.	Forty-fourth to Forty-fifth	Union and Sherman	\$ 31 25
20794	C. G. and P.	West Madison to West Washington	May and Ann	543 11
20804	C. F. and P.	Vine to Orchard	Willow and North avenue	1,340 00
20880	C. G. and P.	Division to Scott	State and Astor	635 56
20848	C. G. and P.	Forty-fourth to Forty-fifth	Berkeley and Greenwood avenues	1,345 70
20849	C. F. and P.	Forty-fifth to Forty-sixth	Indiana and Prairie avenues	1,618 88
20851	Paving.	N. from Randolph to E. and N. terminus	Market and Jackson	520 81
20853	C. G. and P.	Oakley to 100 ft. west	Adams and Franklin	267 89
20863	C. G. and P.	Forty-first to Forty-second	Grand boulevard and Calumet avenue	226 56
20906	C. G. and P.	Seminary avenue to Osgood	Garfield avenue and Center	1,882 90
20995	C. G. and P.	West Jackson to West Van Buren	Lincoln and Honore	1,055 29
21006	C. G. and P.	Western avenue to Campbell avenue	Flournoy and West Polk	3,171 57
21021	C. G. and P.	Sheffield avenue to Osgood	Center and Garfield avenues	1,859 98
21022	C. G. and P.	Wrightwood avenue to Seminary place	Racine and Seminary avenues	1,545 60
21023	C. G. and P.	Noble to Elizabeth	Austin and Grand avenues	2,639 26
21068	C. G. and P.	North avenue to Seminary place	North Clark and LaSalle avenue	717 75
21193	C. G. and P.	Franklin to Market	Superior and Huron	968 33
21311	C. G. and P.	Sixteenth to Eighteenth	Michigan and Indiana avenues	2,046 42
21285	C. F. and P.	St. Louis avenue to Homan avenue	Madison and Montroe	2,120 10
21282	C. F. and P.	West Polk to Harvard	Kedzie and Albany avenues	1,641 17
21319	C. F. and P.	Flournoy to Taylor	Oakley and Claremont avenues	3,038 96
Total				\$ 74,579 31

## ALLEYS—GRANITE BLOCK AND VITRIFIED BRICK PAVEMENTS.

No. of W <sup>ar</sup> nt.	IMPROVEMENT	FROM	BETWEEN	AMOUNT.
20392	*G. and P.	Dearborn to State	Lake and South Water	\$ 1,175 94
20850	†Paving	Michigan avenue to Central avenue	Lake and South Water	549 59
20851	†C. G. and P.	A point 100 ft. W. of W. lot line of LaSalle to a point 80 ft. E. of E. lot line of Fifth avenue.	Randolph and Washington	505 00
21330	*C. G. and P.	First north of Fifty-third	From E. line of Lake avenue to W. line of I. C. R. right of way.	422 87
Total				\$ 2,653 40

\* Granite Block.

† Vitrified Brick.

## OPENING AND WIDENING.

No. of War'nt.	IMPROVEMENT.	NAME OF STREET.	FROM	TO	AMOUNT.
19965	Opening	Ninety-first	State	Canal	\$ 10,188 45
19975	Opening	Kenmore avenue	Lawrence avenue	Sulzer	208 30
19983	Opening	Alley between Sacramento avenue	Lawrence, Francisco, Lexington and		2,905 00
19984	Opening and widening	Indiana avenue	Ninety ninth	Flournoy	37,583 00
20105	Opening	Owasco	N. and S. center line of lot 12, blk. 6, Rockwell's addition to Chicago	115th	
20124	Opening	Eightieth	E. line of Sec. 31, T. 38, R. 15	Stanley avenue	2,038 50
20173	Opening	Sixty-fifth court	Stewart avenue	Lake Michigan	8,744 99
20792	Opening	Alley	N. ½ lot 3, blk. 1, of Rockwell's	Honore	15,334 35
21850	Opening	Prairie avenue	Garfield boulevard	addition to Chicago	773 75
	Total			Sixty-first	78,567 00
					\$ 156,343 34

## STREETS—CURBING AND FILLING.

No. of War'nt.	NAME OF STREET.	FROM	TO	AMOUNT.
20575	Grace	Southport avenue	Ashland avenue	\$ 2,696 90
20701	Arch	Archer avenue	Lyman	7,031 06
	Total			\$ 9,727 96

## WATER SUPPLY PIPES.

No. of War'nt.	NAME OF STREET.	FROM	TO	AMOUNT.
19966	Douglas Park boulevard (N. S.)	Sawyer avenue	Troy	\$ 108 00
19967	Fillmore	Douglas Park boulevard	Crawford avenue	40 50
19970	Central Park blvd. (E. and S. S.)	West Kinzie	Kedzie avenue	5,429 15
19981	Diversey avenue	Humboldt avenue	Maplewood avenue	46 80
19994	Bonney avenue	Douglas Park boulevard	150 ft. south of West Sixteenth	2,181 48
20001	Kellogg avenue	West Twenty-second	C., B. & Q. R. R.	2,256 46
20002	Hawley avenue	West Twenty-second	C., B. & Q. R. R.	2,509 02



## WATER SUPPLY PIPES—CONTINUED.

No. of Ward.	NAME OF STREET.	FROM	TO	AMOUNT.
20003	West Forty fourth	West Twenty-second	C., B. & Q. R. R.	\$ 2,992 38
20004	West Forty-third	West Twenty-second	C., B. & Q. R. R.	2,227 06
20005	Ogden avenue	West Forty-second	West Forty-fourth	1,980 08
20008	West Fiftyth	Charlotte	Armitage avenue	3,676 08
20009	118th	Stewart avenue	Canal	399 63
20010	Canal	115th	119th	3,701 52
20011	West Forty-eighth (Jefferson av.)	Humboldt avenue	Charlotte avenue	1,652 64
20012	Charlotte avenue	West Forty-eighth	West Fiftyth	1,799 88
20054	Alley south of Garfield boulevard	Center avenue	Loomis	1,486 34
20055	Ada	Garfield boulevard	Fifty-seventh	1,538 06
20056	Ninety-third	Luella avenue	Stoney Island avenue	7,012 96
20172	West Fiftyth place	Humboldt avenue	Armitage avenue	1,769 14
20197	Trumbull avenue	300 ft. south of West Sixteenth	Douglas Park boulevard	2,370 16
20198	West Twenty-second	West Fortyth	West Forty-fourth	3,710 00
20202	Flournoy	Albany avenue	Kedzie avenue	734 58
20203	Theodosia	Milwaukee avenue	Central avenue	3,243 60
20204	Spaulding avenue	100 ft. south of Twenty-fourth	West Twenty-sixth	1,543 36
20205	Sawyer avenue	250 ft. south of Twenty-fourth	West Twenty-sixth	1,370 58
20206	Flournoy	325 ft. west of Kedzie avenue	Central Park avenue	3,134 42
20207	Thirty-eighth	St. Louis avenue	Central Park avenue	880 86
20271	Clinton	118th	119th	827 86
20272	100th	Michigan avenue	State	1,469 16
20273	Ninety-ninth place	Michigan avenue	State	1,338 78
20274	Ninety-ninth	Indiana avenue	State	3,004 00
20275	Elizabeth avenue	Eighty-first	Eighty-third	1,875 14
20276	Eighty-third	Anthony avenue	Elizabeth avenue	1,991 20
20277	Carmen avenue	East Ravenswood Park	510 ft. west of Ashland avenue	960 36
20313	Grace	Albany avenue	Sacramento avenue	983 68
20314	Albany avenue	Grace	Elston avenue	3,088 84
20351	Loomis	Ninetyth	Ninety-fifth	4,407 48
20352	Hilliard avenue	104th	107th	2,763 42
20353	Pine	40 ft. west of Wright	Alley east of East Ravenswood Park	570 28
20354	North Fifty-ninth	Ashland avenue	Clark	442 02
20355	Center	North Clark	Southport avenue	1,206 28
20356	Sixty-seventh	Halsted	Peoria	770 62
20357	Champaign avenue	Sixty-seventh	Sixth-eighth	1,013 36

## OPENING AND WIDENING.

No. of Warr't.	IMPROVEMENT.	NAME OF STREET.	FROM	TO	AMOUNT.
19965	Opening	Ninety-first	State	Canal	\$ 10,188 45
19975	Opening	Kenmore avenue	Lawrence avenue	Sulzer	208 80
19983	Opening	Alley between Sacramento ave	nue, Francisco, Lexington and	Flournoy	2,905 00
19984	Opening and widening	Indiana avenue	Ninety ninth	115th	87,583 00
20105	Opening	Owasco	E. and 3/4 center line of lot 12, blk. 6, Red- well's addition to Chicago	Stanley avenue	2,088 50
20124	Opening	Eightieth	E. line of Sec. 31, T. 88, R. 15,	Lake Michigan	8,744 99
20173	Opening	Sixty-fifth court	Stewart avenue	Honore	15,384 85
20792	Opening	Alley	N. 1/2 lot 8, blk. 1, of Rockwell's	addition to Chicago	78,778 75
21850	Opening	Prairie avenue	Garfield boulevard	Sixty-first	78,567 00
	Total				\$ 156,843 84

## STREETS—CURBING AND FILLING.

No. of Warr't.	NAME OF STREET.	FROM	TO	AMOUNT.
20575	Grace	Southport avenue	Ashland avenue	\$ 2,696 90
20701	Arch	Archer avenue	Lyman	7,081 06
	Total			\$ 9,727 96

## WATER SUPPLY PIPES.

No. of Warr't.	NAME OF STREET.	FROM	TO	AMOUNT.
19966	Douglas Park boulevard (N. S.)	Sawyer avenue	Troy	\$ 108 00
19967	Fillmore	Douglas Park boulevard	Crawford avenue	40 50
19970	Central Park blvd. (E. and S. S.)	West Kinzie	Kedzie avenue	5,429 15
19981	Diversey avenue	Humboldt avenue	Maplewood avenue	46 80
19984	Bonney avenue	Douglas Park boulevard	150 ft. south of West Sixteenth.	2,181 48
20001	Kellogg avenue	West Twenty-second	C., B. & Q. R. R.	2,266 46
20002	Hawley avenue	West Twenty-second	C., B. & Q. R. R.	2,509 02



## WATER SUPPLY PIPES—CONTINUED.

No. of Water.	NAME OF STREET.	FROM	TO	AMOUNT.
20437	Rockwell	West Twenty-second	Alley south of Parmelee	\$ 1,362 10
20438	West Erie	West Forty-eighth	West Fiftyeth	1,882 56
20439	Avers avenue	West Sixteenth	West Nineteenth	1,900 08
20440	Hamlin avenue	Prince avenue	Frederick	1,008 06
20455	Greenwood avenue	Irving Park boulevard	400 ft. north of Everett	1,198 86
20468	Wood	Sixty-second	Sixty-third	1,135 26
20469	South Forty-second avenue	Harrison	Gresham	3,221 34
20470	Archer avenue	Lawndale avenue	Hamlin avenue	1,396 38
20471	Hamlin avenue	Forty-seventh	Forty-ninth	2,038 84
20472	South Ridgeway avenue	Forty-seventh	Forty-ninth	1,637 70
20473	Lawndale avenue	Forty-seventh	Forty-ninth	1,603 78
20474	North Forty-first avenue	Belle Plaine avenue	Irving Park avenue	1,081 20
20490	Ashland avenue	Bryn Mawr avenue	125 ft. north of Edgewater avenue	1,173 40
20491	Edgewater avenue	Ashland avenue	Hamilton	1,182 96
20492	Hollywood avenue	Ashland avenue	Hamilton	1,182 96
20493	Bryn Mawr avenue	Clark	Hamilton	1,657 84
20494	Olive avenue	Ashland avenue	Hamilton	1,182 96
20504	West Eighteenth	Western avenue	100 ft. west of Rockwell	1,017 28
20506	Carpenter road	North branch Chicago river	Carpenter court	6,760 08
20514	West Adams	South Forty-sixth avenue	South Forty-seventh avenue	1,030 78
20520	Diversey avenue	Milwaukee avenue	Hamlin avenue	4,184 88
20525	North Harding avenue	Bloomington road	425 ft. north of North avenue	1,262 46
20539	Ridgeway avenue	Milwaukee avenue	George	1,317 58
20541	Balmoral avenue	Southport avenue	North Clark	1,378 00
20546	Mara	Adison	Nellie	914 78
20547	Muskegon avenue	103d	104th	1,308 00
20548	103d	Muskegon avenue	Notre Dame avenue	788 64
20549	West Taylor	Campbell avenue	Rockwell	893 58
20550	Laella avenue	St. Lawrence avenue	Vincennes avenue	707 00
20551	Laurel avenue	Seventy-fifth	Seventy-seventh	1,703 42
20555	Berteau avenue	Diversey avenue	Robey	1,779 74
20556	Washington avenue	Lincoln avenue	Gorden	986 86
20557	Le Moine	Sixty-second	Sixty-third	1,262 46
20558	Trumbull avenue	North Spaulding avenue	Kedzie avenue	750 48
20559	North Homan avenue	West Twenty-seventh	West Thirtieth	2,201 02
20560		Costello avenue	425 ft. north of Fullerton avenue	3,341 12

20561	Flournoy.....	California avenue.....	Washtenaw avenue.....	831 50
20562	South Fortieth avenue.....	West Twenty sixth.....	West Twenty-seventh.....	960 36
20563	Millard avenue.....	West Sixteenth.....	Douglas Park boulevard.....	1,773 88
20564	Troy.....	West Nineteenth.....	West Twenty-first.....	914 78
20565	Sixty-third place.....	Jackson avenue.....	300 ft. east.....	416 58
20566	Sixty-third.....	Ashland avenue.....	110 ft. east of Laffin.....	1,609 18
20567	Sixty-third.....	Bishop.....	Elizabeth.....	3,002 98
20568	North Fortieth avenue.....	West Byron.....	West Grace.....	832 10
20569	North Fortieth avenue.....	Center.....	Irving Park avenue.....	1,521 10
20570	North Fortieth court.....	200 ft. north of Irving Park avenue.....	300 ft. south of West Byron.....	1,807 80
20571	Saginaw avenue.....	Seventy-ninth.....	Eighty first.....	2,044 74
20572	South Forty-fourth court.....	West Fifteenth.....	West Sixteenth.....	914 78
20573	West Sixteenth.....	South Forty-fourth avenue.....	South Forty-fourth court.....	487 60
20594	Fifty-ninth.....	Stony Island avenue.....	Rosalie court.....	983 68
20613	Moore.....	Robey.....	Lincoln.....	932 08
20630	Grand avenue.....	Robinson avenue.....	Austin avenue.....	8,088 86
20631	Vail.....	Sixty-third.....	Sixty-seventh.....	4,550 78
20632	Selwyn avenue (Division).....	Linden avenue.....	St. Charles avenue.....	2,227 00
20633	West Congress.....	Central Park avenue.....	Homan avenue.....	1,550 78
20663	Springfield avenue.....	West Sixteenth.....	West Nineteenth.....	1,988 56
20664	St. Lawrence avenue.....	Sixty-fifth.....	Sixty-seventh.....	1,935 56
20665	McAuley avenue.....	Dickens avenue.....	Armitage avenue.....	827 86
20666	North Forty-eighth court.....	Cortland avenue.....	Armitage avenue.....	941 28
20667	South Robey.....	200 ft. north of Ninety-fourth.....	Ninety-fifth.....	1,217 94
20668	Springfield avenue.....	100 ft. north of Grand avenue.....	West North avenue.....	2,577 92
20737	West Eddy.....	North Fortieth avenue.....	Avondale avenue.....	8,209 78
20734	Paulina.....	West Fifty-ninth.....	West Sixty-third.....	8,595 52
20735	North Forty-eighth court.....	Armitage avenue.....	Dickens avenue.....	801 36
20736	Argyle.....	575 ft. east of Clark.....	Evanston avenue.....	2,577 92
20737	North Sawyer avenue.....	Central Park boulevard.....	West Kinzie.....	689 60
20742	Dunning.....	Southport avenue.....	High.....	487 60
20743	Cortland avenue.....	Durham avenue.....	150 ft. east.....	400 68
20744	Pine Grove avenue.....	Irving Park avenue.....	180 ft. north of Byron.....	510 92
20745	Irving Park avenue.....	Lake Michigan.....	Halsted.....	1,137 88
20746	West Harrison.....	South Forty-third avenue.....	South Forty-fourth avenue.....	920 08
20747	Talman avenue.....	Eighty-first.....	Eighty-third.....	1,991 74
20753	Artesian avenue.....	Eighty-first.....	Eighty-third.....	1,991 74
20761	Colorado avenue.....	South Fortieth avenue.....	South Forty-third avenue.....	3,315 94
20764	Eighty-second.....	Maplewood avenue.....	Talman avenue.....	636 00
20765	Eighty-second place.....	Maplewood avenue.....	Talman avenue.....	636 00
20766	Campbell avenue.....	Eighty-first.....	Eighty-third.....	1,991 74
20767	California avenue.....	Eighty-first.....	Eighty-third.....	2,294 90



## WATER SUPPLY PIPES—CONTINUED.

No. of Warr't.	NAME OF STREET.	FROM	TO	AMOUNT.
20768	Fairfield avenue.....	Eighty first.....	Eighty-third.....	\$ 1,991 74
20769	Washtenaw avenue.....	Eighty first.....	Eighty-third.....	1,991 74
20770	Michigan avenue.....	50 ft. south of Seventy-first.....	Seventy-fifth.....	8,519 20
20780	Greenwood avenue.....	Irving Park boulevard.....	400 ft. north of Everett.....	1,198 86
20782	Eighty first.....	Western avenue.....	California avenue.....	1,864 54
20783	Eighty-first place.....	Talman avenue.....	Maplewood avenue.....	636 00
20787	West Forty-third.....	Rockwell.....	California avenue.....	2,026 72
20838	Washtenaw avenue.....	West Forty-third.....	West Forty-fourth.....	872 38
20839	Aberdeen.....	West Seventy-third.....	West Seventy-fourth.....	864 96
20840	Fiftieth.....	Grand boulevard.....	220 ft. east.....	315 88
20841	Fiftieth.....	Vincennes avenue.....	Champlain avenue.....	1,074 84
20842	North Forty fifth avenue.....	Lawrence avenue.....	310 ft. north of Leland avenue.....	438 84
20843	109th.....	Bensley avenue.....	Calhoun avenue.....	464 28
20844	Collax avenue.....	Seventy-ninth.....	Eighty-first.....	1,920 72
20845	Seventy-ninth.....	Collax avenue.....	Marquette avenue.....	1,287 90
20846	Homan avenue.....	Irving Park avenue.....	Montrose avenue.....	3,896 34
20847	Strong.....	North Fiftieth avenue.....	North Fifty-third avenue.....	2,607 60
20860	Western avenue.....	Seventy-first.....	Eighty-third.....	12,332 50
20865	Charles.....	Hough.....	103d.....	197 50
20927	Paulina.....	West Fifty-second.....	West Fifty-fourth.....	2,655 04
20928	Hoyne avenue.....	West Forty-eighth.....	West Forty-ninth.....	1,335 72
20929	South Forty-first court.....	West Twenty-sixth.....	West Twenty-eighth.....	1,498 12
20930	West Twenty-sixth.....	South Fortieth avenue.....	South Forty-second avenue.....	2,566 94
20931	North Forty-third avenue.....	Hirsch.....	North avenue.....	2,307 92
20932	South Talman avenue.....	West Forty-third.....	West Forty-fourth.....	1,013 36
20933	Hamlin avenue.....	Hirsch.....	Potomac avenue.....	1,580 26
20934	Wabash avenue.....	Seventy-first.....	Seventy-third.....	2,327 68
20935	Turner avenue.....	West Twenty-fifth.....	West Twenty-sixth.....	1,218 40
20936	Fleetwood avenue.....	190 ft. north of Blanche.....	West North avenue.....	666 36
20990	West 104th place.....	Wood.....	Prospect avenue.....	2,371 89
20991	Michigan avenue.....	Ninety-ninth.....	50 ft. north of 100th place.....	1,954 84
20992	West Division.....	Grand avenue.....	Hamlin avenue.....	8,177 47
21005	Troy.....	Irving Park avenue.....	West Grace.....	2,608 54
21007	LaSalle.....	West 118th.....	West 119th.....	1,320 60
21008	Ada.....	West Fifty-seventh.....	West Fifty-ninth.....	2,359 32
21009	North Sawyer avenue.....	West Ohio.....	West Huron.....	1,085 00

21010	North Sawyer avenue	West Chicago avenue	280 ft. north of West Huron	482 00
21011	West Huron	Trumbull avenue	St. Louis avenue	559 50
21012	Ashtland avenue	Foster avenue	7 1/2 ft. north of Winona avenue	449 92
21013	West Twenty-fifth	South Fortieth avenue	South Fortieth court	1,018 16
21014	Monticello avenue	North avenue	LeMoine	1,172 60
21015	Carroll avenue	North Albany avenue	180 ft. W. of North Sacramento avenue	645 56
11048	South Forty-first avenue	West Twenty-sixth	West Thirtieth	2,715 72
21049	South Forty-second avenue	West Twenty-ninth	West Thirty-first	2,786 92
21050	South Forty-second avenue	West Sixteenth	West Eighteenth	898 88
21053	Central Park avenue	Milwaukee avenue	Diversey avenue	1,638 76
21134	North Robey	Winnemac avenue	Foster avenue	1,372 70
21135	West Huron	North Sawyer avenue	North Homan avenue	1,285 78
21136	Goodspeed	West Fifty-ninth	West Sixty-third	3,531 92
21137	Wood	West Fifty-ninth	West Sixty-second	3,058 10
21138	West Grace	Kedzie avenue	Troy	398 00
21160	Spaulding avenue	West Twenty-sixth	West Thirtieth	2,706 18
21163	Albany avenue	West Chicago avenue	West Huron	829 28
21164	Champlain avenue	Burnside avenue	Ninety-fifth	928 19
21165	Kenmore avenue	Lawrence avenue	Evansston avenue	2,584 28
21166	La Salle	Ninety-ninth	103d	3,482 10
21167	Escanaba avenue	Ninety-sixth	Ninety-seventh	793 23
21168	Montrose avenue	Fortieth avenue	Central Park avenue	3,379 28
21169	North Fortieth avenue	West Berceau avenue	Montrose avenue	1,646 18
21202	Seventy-third	St. Lawrence avenue	Rhodes avenue	481 14
21203	St. Lawrence avenue	230 ft. south of Seventy-fourth	Seventy-fifth	604 74
21204	Ingleside avenue	200 ft. north of Seventy-fourth	P., Ft. W. & C. Ry.	290 89
21205	Seventy-fourth	Drexel avenue	Ellis avenue	835 46
21206	Ellis avenue	Seventy-fourth	Seventy-fifth	867 39
21207	Justine	West Sixty-first	West Sixty-third	1,763 84
21208	Jeffrey avenue	Seventieth	Seventy-first	1,050 73
21209	Jeffrey avenue	Seventy-fifth	Seventy-ninth	4,172 16
21210	Evans avenue	Forty-ninth	Fiftieth	1,035 28
21212	North Troy	West Roscoe	Elston avenue	890 05
21213	Costello avenue	North Fortieth avenue	C., M. & St. P. Ry.	442 00
21214	North Fortieth avenue	75 ft. south of Cortland	75 ft. south of Bloomingdale road	1,432 06
21215	North Fifty-eighth avenue	Fullerton avenue	Grand avenue	2,445 56
21216	Hamlin avenue	West Chicago avenue	300 ft. south of Iowa	472 90
21217	Lawndale avenue	West Ohio	West Indiana	761 30
21218	Hirsch	Kedzie avenue	Westward 175 ft.	398 74
21219	Le Moyne	Kedzie avenue	North Spaulding avenue	730 34
21220	West Wilson avenue	North Forty-seventh avenue	North Forty-seventh court	503 80
21224	North Fifty-seventh court	Armitage avenue	Grand avenue	1,232 60



## WATER SUPPLY PIPES—CONTINUED.

No. of Ward.	NAME OF STREET.	FROM	TO	AMOUNT.
21225	North Fifty-seventh avenue.	Armitage avenue.	Grand avenue.	\$ 1,126 78
21226	North Fifty-sixth court.	Armitage avenue.	Grand avenue.	1,047 28
21227	North Forty-fourth avenue.	Cortland avenue.	Armitage avenue.	916 83
21228	North Forty-seventh court.	West Sunnyside avenue.	West Wilson avenue.	914 77
21229	Cortland avenue.	Lawndale avenue.	C. M. & St. P. Ry.	1,630 28
21230	North Spaulding avenue.	Grand avenue.	Hirsch	3,403 66
21231	North Fifty-ninth avenue.	Fullerton avenue.	Grand avenue.	1,962 06
21232	North Fifty-eighth court.	Fullerton avenue.	Grand avenue.	2,062 76
21233	North Fifty-seventh avenue.	Fullerton avenue.	Grand avenue.	2,338 36
21234	North Fifty-seventh court.	Fullerton avenue.	Grand avenue.	2,258 86
21244	Emerald avenue.	120 ft. southwest of Eighty-ninth.	West Ninetieth.	664 48
21245	Sixty-first.	State	South Park avenue.	2,960 08
21246	Sacramento avenue.	Diversey avenue.	West Wellington.	1,918 60
21247	Elizabeth avenue.	Seventy-ninth.	Eighty-first.	1,812 24
21256	North Forty-fourth court.	Lawrence avenue.	325 ft. north of West Sunnyside avenue.	2,177 24
21257	North Fifty-sixth avenue.	Armitage avenue.	West Wrightwood avenue.	6,366 36
21258	West Wrightwood avenue.	North Fifty-fourth avenue.	North Fifty-sixth avenue.	1,948 28
21259	Fullerton avenue.	North Fifty-fourth avenue.	North Fifty-sixth avenue.	1,948 28
21270	North Fifty-ninth court.	Fullerton avenue.	Grand avenue.	1,861 36
21271	North Sixtieth avenue.	Fullerton avenue.	Grand avenue.	1,910 12
21274	Irving Park avenue.	North Forty-fifth avenue.	North Forty-fifth court.	400 80
21275	North Fifty-sixth court.	Fullerton avenue.	Grand avenue.	2,444 36
21276	West Addison.	135 ft. west of North Fortieth avenue.	North Forty-first court.	1,465 98
21283	North Lawndale avenue.	Division	Augusta.	1,737 34
21284	South Seelye avenue.	West Forty-eighth	West Forty-ninth.	929 19
21285	Greenwood avenue.	Seventy-third.	Seventy-fifth.	1,718 26
21286	Seventy-first place.	Woodlawn avenue.	Ill. Cent. R. R.	606 80
21308	North Fifty-second avenue.	Fullerton avenue.	Grand avenue.	4,217 74
21309	North Fifty-fifth avenue.	Fullerton avenue.	West Wrightwood avenue.	1,959 94
21310	North Fifty-fourth court.	Fullerton avenue.	West Wrightwood avenue.	1,959 94
21317	Trumbull avenue.	Governor's Park way.	Central Park boulevard.	684 05
21318	Beach avenue.	North Homan avenue.	Spaulding avenue.	903 44
21327	Evergreen avenue.	North Kedzie avenue.	North Homan avenue.	1,744 76
21328	West Ohio.	Central Park boulevard.	Albany avenue.	601 65
21329	Woodlawn avenue.	Seventy-fourth.	South Chicago avenue.	797 35
21341	Prairie avenue.	Sixty-first.	Sixty-third.	1,891 36
Total.				\$ 481,977 32

## WATER SERVICE PIPES.

No. of Warrant.	NAME OF STREET.	FROM	TO	AMOUNT.
19869	Escanaba avenue	Eighty-seventh	Ninety-first	\$ 1,984 50
19971	Forty-third	Goodspeed	Western avenue	5,368 00
19976	Wallace avenue	Belmont avenue	Humboldt boulevard	2,635 00
19988	Western avenue	West Chicago avenue	North avenue	511 25
19996	North Fifty-ninth	Clark	Robey	630 00
20022	West Congress	West Fortieth	West Forty-sixth	3,196 00
20023	Wolcott	Webster avenue	North Fifty-ninth	604 50
20024	Palmer	Webster avenue	North Fifty-ninth	448 50
20025	Francis	Charlton	Southport avenue	595 00
20026	Vernon avenue	Irving Park boulevard	Everett avenue	630 00
20027	Mead	Fullerton avenue	Logan avenue	1,190 00
20032	Flournoy	Kedzie avenue	Central Park avenue	2,873 00
20033	Kedzie avenue	Milwaukee avenue	Belmont avenue	3,553 00
20084	Congress	Homan avenue	Central Park avenue	805 00
20035	Carroll avenue	950 ft. west of Kedzie avenue	Homan avenue	192 50
20060	West Forty-second	Lake	West Twelfth	2,040 00
20061	Carlisle place	Kedzie avenue	Albany avenue	455 00
20062	Carroll avenue	Francisco	Sacramento avenue	612 50
20063	Fairfield avenue	West Sixteenth	West Twenty second	1,697 50
20064	Sixty-eighth	Halsted	Sangamon	192 50
20065	Green	Sixty-seventh	Sixty-ninth	612 50
20095	Evans avenue	Sixty-third	Sixty-ninth	3,872 00
20096	Fillmore	Crawford avenue (Fortieth)	Douglas boulevard	1,822 50
20097	Bishop	Forty-ninth	Sixty-third	7,568 00
20102	Seventy-third	Stony Island avenue	Ill. Cent. R.	1,872 00
20103	Collins	Kedzie avenue	Albany avenue	542 50
20104	West Sixteenth	Kedzie avenue	Albany avenue	455 00
20123	Campbell avenue	Twelfth	Viaduct	922 50
20194	Vernon avenue	Sixty-ninth	Seventy-third	2,720 00
20219	Dauglas Park boulevard	Colorado avenue	Albany avenue	195 75
20250	Elias	Archer avenue	Lyman	227 50
20251	May	Sixty-eighth	Sixty-ninth	630 00
20252	Sixty-seventh	Halsted	Sangamon	315 00
20253	Clara place	Western avenue	Perry avenue	245 00
20254	Bradley place	Rokeby	Halsted	227 50
20255	Attica	Laurel avenue	Auburn avenue	297 50



## WATER SERVICE PIPES—CONTINUED.

No. of War'nt.	NAME OF STREET.	FROM	TO	AMOUNT. \$
20256	James avenue	Laurel avenue	Auburn avenue	297 50
20257	Francisco	Van Buren	West Twelfth	315 00
20258	Flournoy	Albany avenue	Central Park avenue	680 00
20259	Spaulding avenue	Madison	Jackson boulevard	385 00
20260	Fifty-first	Lincoln	Leavitt	1,870 00
20261	Twenty-fifth	Rockwell	Lawndale avenue	823 50
20262	West Fortieth	Lake	Chicago avenue	787 50
20263	Hinman	Western avenue	Pan Handle Ry.	227 50
20264	Arch	Lynan	Archer avenue	350 00
20265	Adams	Seventy-third	Seventy-fifth	1,037 00
20266	Fairfield avenue	Chicago avenue	Augusta	507 50
20267	Evergreen avenue	Rockwell	California avenue	490 00
20268	Green	Sixty-sixth	Sixty-seventh	297 50
20269	Sixty-seventh	Morgan	Loomis	1,993 25
20270	Evanston avenue	Montrose boulevard	North Fifty-ninth	7,203 00
20271	West Van Buren	West Fortieth	West Forty-sixth	8,774 00
20272	Halsted	Montrose boulevard	Windett avenue	1,680 00
20273	Hamlin avenue	Douglas Park boulevard	West Sixteenth	1,330 00
20274	Trumbull avenue	Ohio	Central Park boulevard	490 00
20275	Congress	Van Buren	Harrison	840 00
20276	Kimball avenue	Armitage avenue	Milwaukee avenue	4,454 00
20277	Rockwell	West Twelfth	West Twenty second	1,785 00
20278	Taylor	California avenue	Kedzie avenue	733 50
20279	Taylor	Campbell avenue	California avenue	682 50
20280	West Twentieth	Rockwell	Washtenaw avenue	297 50
20281	Sawyer avenue	Twenty-second	Twenty-fourth	393 50
20282	Natt avenue	Seventieth	Seventy-fifth	857 50
20283	Vernon avenue	Everett	Center	1,645 00
20284	Jefferson avenue	Seventy-first	Seventy-fifth	1,032 50
20285	Forty-eighth	Robey	Leavitt	822 50
20286	Hickling avenue	Halsted	Center	455 00
20287	West Fortieth	Pennock boulevard	Fullerton avenue	1,330 00
20288	Seventy-fifth	Stony Island avenue	Ill. Cent. R. R.	1,579 50
20289	Twelfth	West Fortieth	West Forty-sixth	4,352 00
20290	State	Sixty-eighth	Seventy-fifth	6,651 25
20291	120th	Halsted	Clinton	770 00

20610	St. Louis avenue.....	Ogden avenue.....	Twenty-sixth.....	3,587 00
20718	Irving Park boulevard.....	Halsted.....	Lake shore.....	1,082 50
20719	Fifty-seventh.....	State.....	South Park avenue.....	245 00
20720	Forty-eighth.....	Grand boulevard.....	St. Lawrence avenue.....	350 00
20721	Atlantic.....	Forty-third.....	Goshen.....	1,172 50
20722	Sixty-third place.....	Maryland avenue.....	First alley east of Drexel boulevard.....	180 00
20723	Pine Grove avenue.....	Irving Park boulevard.....	180 ft. north of Byron avenue.....	451 00
20856	Eighty-ninth.....	South Chicago avenue.....	Erie avenue.....	180 00
20888	LaSalle.....	Sixty-first.....	Sixty-third.....	507 50
20889	Fiftieth.....	Ashland avenue.....	Morgan.....	234 00
21016	Maryland (Jackson) avenue.....	Sixty-third.....	629 ft. south.....	324 00
21017	Monticello (Franklin) avenue.....	Frederick avenue.....	West North avenue.....	1,172 50
21020	West Superior.....	Washtenaw avenue.....	California avenue.....	576 00
21170	Ninety-first.....	Commercial.....	Green Bay avenue.....	1,053 00
21171	Carroll avenue.....	North Albany avenue.....	North Sacramento avenue.....	792 00
21237	Thomas.....	North Leavitt.....	North Wood.....	342 00
21238	Rhine.....	Milwaukee avenue.....	Myrtle avenue.....	152 00
21239	Kenmore avenue.....	Lawrence avenue.....	Evanston avenue.....	1,207 50
21240	St. Lawrence avenue.....	Seventy-third.....	Seventy-fifth.....	1,470 00
21241	Indiana avenue.....	Sixty-second.....	Sixty-third.....	700 00
21242	Shell avenue.....	Seventy-third.....	Seventy-fifth.....	1,015 00
21243	Berlin.....	California avenue.....	Myrtle avenue.....	702 00
21248	Cromwell.....	Milwaukee avenue.....	Fullerton avenue.....	171 00
21280	High.....	Fullerton avenue.....	Dunning.....	450 00
21281	Jackson avenue.....	Seventy-second.....	Seventy-fifth.....	910 00
21307	North Ashland avenue.....	Balmoral avenue.....	Winnemac avenue.....	1,887 00
21331	Drexel avenue.....	Seventy-third.....	Seventy-fifth.....	1,172 50
Total.....				\$ 137,901 50

## SEWERS.

No. of War'nt.	IMPROVEMENT.	NAME OF STREET.	FROM	TO	AMOUNT.
19063	V. T. P.....	Carroll avenue.....	St. Louis avenue.....	Eastern terminus.....	\$ 481 61
20093	V. T. P.....	West Taylor.....	Central Park avenue.....	Lawndale avenue.....	1,505 98
20100	V. T. P.....	Douglas Park boulevard.....	Twelfth.....	Alley west of Harrison.....	1,108 08
20126	B. and V. T. P.....	Washington avenue.....	101st.....	107th.....	11,693 17
20127	V. T. P.....	Harding avenue.....	Grand avenue.....	Division.....	1,519 50



## SEWERS—CONTINUED.

No. of Warrant.	IMPROVEMENT.	NAME OF STREET.	FROM	TO	AMOUNT.
20150	B. and V. T. P.	North Water.	St. Clair.	A point opp. center of lots 11 & 36, C. D. & C. Co., Sub. of original Water lots 55 & 42	\$ 3,866 36
20177	Sewer system.	Wentworth avenue.	Ninety-ninth, Halsted, 103d,		111,818 65
20179	V. T. P.	Crawford avenue.	Armitage avenue.		5,214 18
20180	V. T. P.	Colorado avenue.	Douglas Park boulevard	Fullerton avenue	1,733 50
20181	Sewer system.	Hamlin avenue.	West Fourteenth, West Sixteenth	West Harrison.	16,469 95
20192	V. T. P.	West Congress.	Central Park avenue.	Alley east of St. Louis avenue.	1,812 58
20193	V. T. P.	Champlain	Thirty-third	Bross avenue	1,884 24
20208	Sewer system.	Forty-seventh, Burtis, Hoyne	avenue, etc.		11,717 30
20209	Sewer system.	Hoard, Fiftyeth, Van Osdel,	etc.		7,057 10
20210	V. T. P.	Paulina	Fifty-first	Grand Trunk Ry. junction.	1,811 51
20212	Brick	Western avenue.	Montrose boulevard	Irving Park boulevard	6,220 29
20223	V. T. P.	Alley west of Grand boulevard.	Forty-fifth.	380 ft. north.	70 14
20224	V. T. P.	Brooks avenue.	Seventy-third.	Seventy-fifth.	275 52
20238	V. T. P.	Alley east of Grand boulevard.	Forty-eighth place	Forty-ninth.	442 12
20246	V. T. P.	Ridge avenue.	Charlton	Southport avenue.	1,505 98
20247	V. T. P.	Geraldine avenue	Irving Park boulevard	Northern terminus	2,102 97
20263	Sewer system.	Sixty-fifth, Justine, Laflin, etc.	Western avenue.		24,213 70
20315	V. T. P.	Montrose boulevard		50 ft. west of Leavitt.	2,749 40
20320	Sewer system.	Greenwood avenue, etc.			385 00
20381	V. T. P.	Sixty-fifth	Langley avenue.	190 ft. west of west line of Langley avenue.	352 67
20382	V. T. P.	Leavitt	Irving Park avenue.	Belle Plaine avenue.	951 72
20383	V. T. P.	Oakley avenue.	Irving Park avenue.	Belle Plaine avenue.	1,049 05
20419	V. T. P.	Carroll avenue.	Francisco.	Sacramento avenue.	882 50
20456	V. T. P.	West Taylor	Campbell avenue.	W. line S. E. ¼, etc. Sec. 13, T. 39, R. 13	1,099 55
20457	V. T. P.	Fifty-fourth place	Greenwood avenue.	Ellis avenue.	594 82
20458	V. T. P.	Fifty-fifth	Cornell avenue.	Ill. Cent. R. R.	571 03
20459	V. T. P.	Weage avenue.	Kedzie avenue.	Sheridan	967 94
20490	V. T. P.	Kies place.	Oakley avenue.	Northern terminus	399 07
20461	V. T. P.	Sixty-third place	Maryland avenue.	East 981 ft.	495 54
20462	Brick	Leavitt.	Archer avenue.	Thirty-seventh.	1,706 60
20463	V. T. P.	Cosgrove avenue.	Western avenue.	Leavitt, etc.	2,956 92
20464	V. T. P.	East Ravenswood Park	Irving Park avenue.	Addison.	4,677 50
20467	V. T. P.	Herndon	Wrightwood avenue.	123 ft. south-of Marianna	567 90
20488	V. T. P.	Ogden avenue.	Hamlin avenue	590 ft. S. W. of W. line of Hamlin av.	776 20
20502	Main sewer	West Ninety-fifth	Charles	South Robey, etc.	25,500 00

20505	Main sewer.	Ninety-fifth	Halsted	P., C., C. & St. L. Ry.	30,206 30
20513	V. T. P.	North Clark	Grand avenue.	Church road	649 77
20578	V. T. P.	North Sawyer avenue.	West Ohio.	Alley north of Central Park boulevard	524 53
20579	V. T. P.	Central Park boulevard (S. S.).	Homan avenue.	Trumbull avenue, etc.	997 19
20580	V. T. P.	Wellington avenue.	Glybourn avenue.	Oakley avenue.	787 68
20581	V. T. P.	Ridgeway avenue.	North avenue.	Hirsch	1,794 23
20582	V. T. P.	Thirty-seventh place	Laurel avenue.	Gage	486 57
20591	V. T. P.	West 111th.	Wentworth avenue.	State	2,585 11
20592	V. T. P.	Congress Park (W. S.).	West Van Buren	West Harrison	498 35
20593	V. T. P.	Congress Park (E. S.).	Seventy-third	West Harrison	498 35
20598	V. T. P.	Stony Island avenue.	Sixty-second	Seventy-fifth.	2,651 84
20600	B. and V. T. P.	Prairie avenue.	Rockwell.	Seventy-first.	5,454 82
20604	V. T. P.	West Huron	Irving Park avenue.	Seymour	677 85
20625	V. T. P.	Irving avenue.	Ashland avenue.	Belle Plain avenue.	1,049 05
20629	Sewer system.	Sixty-first	Commercial avenue.	Center, etc.	29,308 13
20729	V. T. P.	Byron	Sixty-ninth	12 ft. E. of East Ravenswood Park.	237 12
20730	V. T. P.	Carpenter	Halsted	15 ft. of Seventieth.	683 34
20731	V. T. P.	Fifty second.	Archer avenue	Morgan	2,141 92
20763	V. T. P.	South Oakley avenue.	Sheridan road	Right of way of C., A. & St. L. R.	328 23
20790	Brick	Wilson avenue.	Central Park boulevard	Evanston avenue.	2,187 87
20833	V. T. P.	North Sawyer avenue.	Vincennes avenue.	West Kinzie.	913 87
20834	V. T. P.	Fiftieth	Cottage Grove avenue.	St. Lawrence avenue	888 70
20835	V. T. P.	Fiftieth	Kedzie avenue.	191 ft. west of Evans avenue.	696 28
20836	V. T. P.	Central Park boulevard	West Fourteenth.	Spaulding avenue.	804 64
20854	V. T. P.	South Forty-fourth avenue.	W. Madison and W. Monroe	100 ft. N. of West Sixteenth.	1,652 86
20948	V. T. P.	Alley	Forty-fifth.	Boys ar. to the E. line of alley E. of Leavitt	774 35
20949	V. T. P.	Dreyer	Fifty-fifth.	Forty-sixth	1,071 23
20950	V. T. P.	South Hermitage avenue.	Sixty-ninth	Forty-sixth	1,039 10
20951	V. T. P.	Elizabeth.	West Twenty-fifth.	Fifty-eighth	890 67
20952	V. T. P.	Francisco	Diversey	Seventieth	889 00
20953	V. T. P.	North Harding avenue.	100th	Douglas Park boulevard	651 06
20978	V. T. P.	North Whipple	Orchard	Wabansia avenue	1,173 35
20979	V. T. P.	Avenue M.	Southport avenue.	Franklin	994 90
20980	V. T. P.	Shades place	West Polk.	102d	2,263 03
20981	V. T. P.	Dunning	Irving Park avenue.	14 ft. west of west line of Vine.	581 31
20982	V. T. P.	Francisco	Oakley avenue.	High	529 93
20983	V. T. P.	Pine Grove avenue	Seventieth.	North 113 ft.	163 89
20984	V. T. P.	School	190 ft. N. W. of Wilson avenue.	South 397 ft.	569 95
20985	V. T. P.	Cregier avenue.	275 ft. S. E. of Lawrence avenue	129 ft. west of Leavitt.	720 28
21035	V. T. P.	Evanston avenue.		Seventy-first.	781 00
21051	V. T. P. (W. S.)	across Evanston avenue.		Western avenue.	2,073 13
21052	V. T. P. (W. S.) and			C., M. & St. P. Ry.	795 66



## SEWERS—CONTINUED.

No. of Warrant	IMPROVEMENT.	NAME OF STREET.	FROM	TO	AMOUNT.
21072	B. and V. T. P.	West Sixty-ninth.	Asbland avenue.	Loomis.	\$ 3,303 65
21073	B. and V. T. P.	Wood	West 101st	West 103d.	3,332 88
21074	V. T. P.	Iowa	North Western avenue.	Campbell avenue.	882 50
21075	V. T. P.	Seipp avenue.	Seventy-first.	Northern terminus.	2,377 25
21109	V. T. P. (E. S.)	Evanston avenue.	Sunnyside avenue.	Montrose avenue.	827 13
21110	V. T. P. (E. S.)	Evanston avenue.	C., M. & St. P. Ry.	420 ft. S. E. of Wilson avenue.	1,106 59
21111	V. T. P.	Evanston avenue.	Lawrence avenue.	Southeasterly 595 ft.	789 18
21112	V. T. P.	Wright court.	Grand avenue.	North 330 ft.	311 93
21113	V. T. P.	North Oakley avenue.	Clybourn avenue.	Oakdale avenue.	1,561 68
21114	V. T. P.	East Ravenswood Park	Lawrence avenue.	Winnemac avenue.	2,484 42
21115	V. T. P.	North Fairfield avenue.	Diversey avenue.	C. & N.-W. Ry.	688 88
21116	V. T. P.	Emmet.	Kedzie avenue.	Northwest 383 ft.	556 58
21117	V. T. P.	Wolfgram	Drake avenue.	East 367 ft.	513 00
21118	V. T. P.	Drake avenue.	Diversey avenue.	303 ft. north of Wolfram.	999 25
21119	V. T. P.	Carmen avenue.	Southport avenue.	Alley east of North Clark.	1,003 88
21161	V. T. P.	Union avenue.	West Sixty-first.	North 287 ft.	447 10
21162	Sewer	Berteau avenue.	Western avenue.	Leavitt	2,661 74
21260	Brick	West Thirty-first	South Fortieth avenue.	South Forty second avenue.	5,747 10
21261	V. T. P.	West Superior	North California avenue.	North Washienaw avenue	985 50
21262	V. T. P.	Carroll avenue.	Albany avenue.	Sacramento avenue.	939 30
21267	V. T. P.	Alley west of Grand boulevard.	Forty-sixth	Forty-seventh	773 35
21268	V. T. P.	South Forty-second avenue.	West Twenty-eighth.	West Thirty-first.	3,290 35
21269	V. T. P.	Berlin	North Talmán avenue.	North California avenue.	1,247 19
21272	V. T. P.	Butler.	West 118th.	West 119th.	1,263 20
21332	V. T. P.	Parnell avenue.	West 118th.	West 119th.	1,327 50
21333	V. T. P.	Eggleson avenue.	West 118th.	West 119th.	1,327 50
21384	V. T. P.	West Huron	Kedzie avenue	North Spaulding avenue	797 55
21389	V. T. P.	Alley W. of Drexel boulevard.	Forty-third.	Forty-fourth	799 77
21395	V. T. P.	West Noble avenue.	Elston avenue	North California avenue.	690 45
21342	Sewer system.	West Twenty-seventh.	Crawford avenue.	Hamlin avenue	38,511 78
21343	Reg. well and sewer	Indiana avenue	103d, 105th and 107th	111th, 113th, 115th, etc.	232,000 00
21347	Main sewer.	Montrose boulevard	North branch of Chicago river.	Milwaukee avenue.	93,000 00
Total.					\$ 771,682 06



## DRAINS.

No. of Warrant.	NAME OF STREET.	FROM	TO	AMOUNT.
19964	Shields avenue	Fifty-fifth	Fifty-eighth	\$ 60 00
19972	Harvard	Crawford avenue	Douglas boulevard	1,276 00
19982	Langley avenue	Sixty-third	Sixty-ninth	4,767 00
19991	Gladys avenue	Fortieth	Forty-sixth	246 81
20006	Vincennes	Sixty-third	South Chicago avenue	3,528 00
20036	Tracy avenue	Forty-third	Forty-fifth	729 00
20038	Balmoral avenue	East Ravenswood Park	Clark	925 00
20039	Kedzie avenue	Milwaukee avenue	Belmont avenue	3,472 00
20040	Palmer	Webster avenue	North Fifty-ninth	906 50
20041	Webster avenue	Clark	Robey	1,054 50
20042	Bryn Mawr avenue	Clark	Evanston avenue	1,702 00
20043	Sixty-seventh	Stony Island avenue	Ill. Cent. R. R.	1,551 00
20044	Sixty-seventh	Morgan	Loomis	1,950 00
20045	Elias	Archer avenue	Lyman	841 50
20046	Swift	Francis	Ridge avenue	481 00
20047	Sixty-seventh	Halsted	Sangamon	396 00
20048	Sangamon	Sixty-seventh	Sixty-ninth	511 50
20049	East Ravenswood Park	North Fifty-ninth	Balmoral avenue	610 50
20050	Bradley place	Rokeby	Halsted	429 00
20051	Emerald avenue	Sixty-fourth	Sixty-fifth	478 50
20052	Alice place (B. S. Holstein Park)	Powell avenue	Perry avenue	181 50
20053	Oakley avenue	Hamburg	Ems	480 50
20057	Evans avenue	Sixty-third	Sixty-ninth	4,380 00
20058	Mead	Fullerton avenue	Logan avenue	1,072 50
20059	Adams avenue	Seventy-third	Seventy-fifth	1,572 50
20066	James avenue	Laurel avenue	Auburn avenue	248 00
20067	Clara place	Perry avenue	Western avenue	264 00
20068	Sawyer avenue	Twenty-second	Twenty-fourth	430 50
20069	West Twentieth	Rockwell	Washtenaw avenue	372 00
20070	Carroll avenue	Sacramento avenue	Francisco	472 50
20071	Hinman	Western avenue	Pan Handle Ry.	232 00
20072	Jefferson avenue	Sixty-eighth	Seventy-first	1,050 00
20073	Taylor	California avenue	Kedzie avenue	790 50
20074	Seventy-third	Stony Island avenue	Ill. Cent. R. R.	2,014 00
20075	Cornelia	Halsted	Sheffield avenue	825 00
20076	Paulina	Grand Trunk Ry.	Fifty-second	1,965 00

## DRAINS—CONTINUED.

No. of Warrant.	NAME OF STREET.	FROM	TO	AMOUNT.
20077	West Twenty-fifth .....	Rockwell .....	California avenue .....	\$ 887 00
20078	Fairfield avenue .....	Sixteenth .....	Twenty-second .....	1,808 00
20079	Ninety-first .....	Green Bay avenue .....	Commercial avenue .....	527 00
20080	Victor .....	Evanston avenue .....	Swift .....	418 50
20081	West Sixteenth .....	Albany avenue .....	Kedzie avenue .....	418 50
20082	Wilton avenue .....	Grace .....	Byron .....	214 50
20083	Homan avenue .....	Twenty third .....	Twenty-sixth .....	1,770 00
20084	Carlisle .....	Albany avenue .....	Kedzie avenue .....	873 00
20085	Collins .....	Albany avenue .....	Kedzie avenue .....	465 00
20086	Park avenue .....	Kedzie avenue .....	Lot 27, block 21, Belmont addition .....	170 50
20088	Fillmore .....	Crawford avenue .....	Douglas boulevard .....	1,498 50
20134	Attica .....	Auburn .....	Laurel .....	356 50
20135	Crawford avenue .....	Center avenue .....	Everett avenue .....	1,470 00
20136	Walcott .....	Webster avenue .....	Norty Fifty-ninth .....	363 00
20137	West Fortieth .....	Kinzie .....	Chicago avenue .....	1,159 00
20138	LaSalle .....	Sixty first .....	Sixty-third .....	313 50
20139	Flournoy .....	Washtenaw avenue .....	California avenue .....	542 50
20140	Peoria .....	Sixty-seventh .....	Sixty-ninth .....	609 00
20141	Rockwell .....	Twelfth .....	Twenty second .....	832 50
20142	Harding avenue .....	Grand avenue .....	North avenue .....	1,567 50
20143	Bremen .....	Western avenue .....	Hoffman avenue .....	247 50
20148	Sixty-third .....	Maryland avenue .....	Alley west of Drexel boulevard .....	222 00
20149	Forty-seventh .....	Cottage Grove avenue .....	Drexel boulevard .....	247 50
20158	West Fortieth .....	North avenue .....	Armitage avenue .....	8,185 00
20161	West Forty second .....	Harrison .....	West Twelfth .....	1,755 00
20190	Vernon avenue .....	Sixty-ninth .....	Seventy-third .....	3,000 00
20200	West Van Buren .....	West Fortieth .....	West Forty sixth .....	4,104 00
20213	Madison avenue .....	Sixty-seventh .....	Seventy-fifth .....	3,884 00
20214	Seventy-first .....	Ill. Cent. R. R. .....	Stony Island avenue .....	703 00
20215	Hamlin avenue .....	Douglas Park boulevard .....	West Sixteenth .....	1,879 50
20229	Western avenue .....	Belmont avenue .....	Roscoe .....	406 00
20269	Ewing avenue .....	101st .....	102d .....	232 00
20299	Irving Park boulevard .....	Lincoln avenue .....	Chicago River .....	5,320 00
20306	Washington .....	Albany avenue .....	E. line lot 15, block 2, Howard's subdn. .....	528 00
20309	Page .....	Grand Trunk Ry. .....	Fifty second .....	1,890 00
20310	Goodspeed .....	Grand Trunk Ry. .....	Fifty-first .....	1,426 00



20311	McChesney avenue	Sixty-third	Chicago avenue	2,448 00
20312	Ewing avenue	Ninety-second	102d	4,494 00
20410	Francis	Southport avenue	Charlton	623 50
20478	Diversey	Kedzie avenue	Milwaukee avenue	942 50
20499	Fairfield avenue	West Chicago avenue	Augusta	435 00
20500	North Paulina	Foster avenue	Catalpa avenue	1,073 00
20601	St. Lawrence avenue	Sixty-third	Seventy-third	8,316 00
20602	Seventy-second	Ill. Cent. R. R.	Stony Island avenue	1,831 50
20732	Fiftieth	Vincennes avenue	Grand boulevard	144 00
20771	Leland avenue	Pemberton (Kacine avenue)	Sheridan road	1,276 50
20855	East Ravenswood Park	Balmoral avenue	Catalpa	98 00
21004	Elston avenue	Hammond avenue	North Kedzie avenue	196 28
20986	Nutt avenue	Seventy-third	Seventy-fifth	986 00
20987	Brooks avenue	Seventy-third	Seventy-fifth	1,116 50
21108	Mead (North Sawyer avenue)	Fullerton avenue	West Wrightwood avenue	942 50
21173	Congress Park (B. S.)	West Van Buren	West Harrison	567 00
21301	South Chicago avenue	Manistee avenue	Ninety-second	325 75
21306	South Throop	Forty seventh	Fifty-first	260 00
21322	Carpenter	Sixty-third	Sixty-seventh	1,416 00
21323	May	Sixty-third	Sixty-seventh	1,200 00
Total				\$ 115,150 84

## PLANK SIDEWALKS.

No. of Ward.	SIDE OF STREET.	NAME OF STREET.	FROM	TO	AMOUNT.
19059	South	Thirty-fifth	Western avenue	California avenue	\$ 351 12
19077	Both	West Elm	West Circle	Myrtle avenue	843 00
20087	West	Wright	Seventy-first	Seventy-second	189 60
20088	North	DeKalb	Flournoy	Polk	109 60
20118	West	State	Forty-seventh	Fifty-fifth	116 15
20171	South	Walnut	East Circle avenue	Cedar	212 10
20195	Both	Sixty-seventh	Page	Leavitt	194 25
20196	Both	Sixty-sixth	Wood	Leavitt	660 10
20199	Both	Sixty-fourth	Wood	Leavitt	382 59
20201	Both	Lincoln place	Norwood avenue	Evergreen avenue	255 00
20217	Both	Ogden avenue	Albany avenue	Homan avenue	414 60
20218	West	Desplaines	Diana	116th	114 80



## PLANK SIDEWALKS—CONTINUED.

No. of Warrant	SIDE OF STREET.	NAME OF STREET.	FROM	TO	AMOUNT.
20222	North	Elm	Chestnut	Cedar	\$ 238 59
20226	Both	Wentworth avenue	Forty-seventh	Sixty-third	8,152 80
20232	Both	Sawyer avenue	Ogden avenue	Sixteenth	1,160 00
20284	South	Tuttle avenue	East Ravenswood Park	Commercial avenue	114 10
20278	Both	Seminary avenue	Webster avenue	Fullerton avenue	219 45
20279	Both	Webster avenue	Ward	Lewis	184 45
20280	Both	Thirty-fifth	Archer avenue	Western avenue	344 40
20286	Both	Lewis	Clybourn	Belden avenue	571 20
20378	North	Eighty-sixth	Mackinaw avenue	Buffalo avenue	98 00
20379	North	Seventy-first	Stony Island avenue	Madison avenue	191 45
20393	Both	Ninetyth	Carpenter	Vincennes	329 70
20394	South	Ninety-fifth	Robey	Leavitt	372 40
20395	North	Eighty-third	Central avenue	South Chicago avenue	118 00
20396	South	Fullerton avenue	Herndon	Halsted	640 64
20407	Both	Milwaukee avenue	Logan square	Jefferson avenue	4,294 20
20408	Northeast	Milwaukee avenue	Jefferson avenue	North Fifty-ninth	955 02
20465	West	Sangamon	Van Buren	Congress	42 40
20466	West	Springfield avenue	Eighteenth	Nineteenth	49 20
20476	Both	Fairfield avenue	North avenue	Courtland avenue	143 15
20509	West	Wright	Sixty-seventh	Sixty eighth	39 60
20576	West	Stony Island avenue	Sixty-eighth	Seventy-first	358 75
20586	West	Clark	Newport avenue	Lawrence avenue	2,093 43
20590	South	Fifty-ninth	State	South Park avenue	454 65
20599	Both	Seelye avenue	Sixty third	Sixty-seventh	566 80
20603	Both	Ashland avenue	Sixteenth	Twenty-second	1,399 20
20605	Both	Atlantic	Gordon	Forty-fourth court	375 60
20616	Both	Escanaba avenue	Ninety-third	Ninety-fifth	948 98
20620	East	Ashland avenue	Cosgrove	Graceland avenue	384 60
20621	Both	Turner avenue	Ogden avenue	Douglas Park boulevard	236 25
20633	Both	Talman avenue	North avenue	Hirsch	196 80
20634	Both	Erie	Oakley avenue	Campbell avenue	307 20
20635	North	Chicago avenue	Glenwood avenue	Lincoln	93 00
20636	North	Chicago avenue	Lincoln	Wood	114 10
20637	Both	Robey	Graceland avenue	Belle Plaine avenue	151 50
20638	Both	Superior	Hoyle avenue	Leavitt	42 70
20639	North	Parmelee	Rockwell	Washtenaw avenue	193 20

20640	East	Chauncey avenue	South Chicago avenue	P., Ft. W. & C. Ry	84 00
20641	East	Muskegon avenue	Ninetieth	Ninety-first	181 12
20642	West	Avenue J	Ninety-fifth	Ninety-sixth	93 10
20643	West	Ewing avenue	Ninety-sixth	Ninety-seventh	178 88
20644	East	Ewing avenue	Ninety-fifth	Ninety-sixth	192 96
20645	Both	Fifty-third	Ashland avenue	Marshfield avenue	145 25
20646	West	Dobson avenue	Seventy-fifth	Seventy-sixth	334 60
20647	North	106th	Hoxie avenue	Calhoun avenue	92 40
20648	West	Torrence avenue	106th	108th	366 80
20649	Both	Anthony avenue	Commercial avenue	Escanaba avenue	313 95
20650	Both	Commercial avenue	Eighty-seventh	B. & O. R.	1,030 08
20651	Both	Ninety-third	Stony Island avenue	Anthony avenue	583 12
20658	North	Sixty-seventh	Yale	Harvard	65 45
20659	North	Twenty-ninth	Dearborn	Wentworth avenue	131 60
20660	Both	Pinney avenue	Jackson boulevard	Van Buren	142 45
20661	North	Seventy-third	Yates avenue	A point 374 ft. east	136 50
20671	Both	North	East Ravenswood Park	Ashland avenue	777 35
20678	Both	Walnut	Ninety-fifth	Ninety-ninth	830 90
20679	Both	Loomis	Forty-seventh	Fifty-fifth	734 65
20680	South	Graceland avenue	Evanson avenue	Clark	980 00
20681	North	Graceland avenue	Evanson avenue	C., M. & St. P. Ry	221 90
20682	Both	Fillmore	Lawndale avenue	Kedzie avenue	834 05
20683	Both	Perry	Belmont avenue	Wellington	489 72
20685	Both	Albany avenue	Harrison	Twelfth	340 56
20686	West	Seipp avenue	Sixty-ninth	Seventy-first	281 05
20687	Both	Vernon avenue	Irving Park boulevard	C. & N.-W. Ry	259 35
20688	Both	Jefferson avenue	Seventieth	Seventy-first	359 45
20689	Both	103d	Notre Dame avenue	Muskegon avenue	280 90
20690	Both	Oak place	School	Belmont avenue	78 75
20691	Both	Oakdale avenue	Racine avenue	Herndon	59 50
20692	Both	Bryn Mawr avenue	Clark	Ashland avenue	207 20
20693	South	Ridge avenue	Clark	Evanson avenue	863 45
20694	Both	Ashland avenue	Lawrence avenue	Tuttle avenue	172 20
20695	Both	Robey	Armitage avenue	Fullerton avenue	597 76
20696	Both	Perry avenue	Wilson avenue	Sunnyside avenue	162 75
20697	Both	Perry avenue	Montrose boulevard	Sunnyside avenue	87 50
20699	Both	Coulter	Hoyle avenue	Robey	42 00
20702	East	Daley	Thirty-fifth	Thirty-sixth	44 80
20703	Both	Utica	Twelfth	Fillmore	136 15
20704	South	Moore	Rockwell	Washtenaw avenue	210 35
20705	Both	West Fortieth	Lake	Kinzie	478 50
20706	Both	Potomac avenue	California avenue	Western avenue	342 30



## PLANK SIDEWALKS—CONTINUED.

No. of Warrant.	SIDE OF STREET.	NAME OF STREET.	FROM	TO	AMOUNT.
20707	West	Daley	Thirty-fifth	Thirty-sixth	\$ 107 45
20709	West	Kedzie avenue	Nineteenth	C., B. & Q. R.	70 00
20710	West	Railroad avenue	Lunt	Pratt avenue	196 00
20711	North	Chicago avenue	Leavitt	Hoyle avenue	70 00
20712	South	Diversey avenue	Herndon	Diversey place	132 00
20713	East	Adams avenue	75 ft. south of Seventieth	Seventy-first	173 95
20714	West	Bishop	Forty-sixth	Forty seventh	77 00
20715	North	Forty-seventh	Ashland avenue	Loomis	590 10
20716	South	Forty-sixth	Ashland avenue	Bishop	231 00
20717	Both	Butler	Thirty-seventh	Thirty-ninth	469 70
20726	Both	Spaulding avenue	Madison	Van Buren	313 25
20740	Both	Byron	Ashland avenue	Commercial avenue	471 45
20741	Both	Flournoy	Leavitt	Oakley avenue	297 50
20760	Both	Leavitt	Armitage avenue	Fullerton avenue	210 88
20787	Both	Ashland avenue	Belmont avenue	Graceland avenue	1,678 03
20795	Both	Lincoln	Armitage avenue	Webster avenue	68 15
20796	Both	West Fortieth (Crawford avenue)	Colorado avenue	Lexington	172 48
20798	Both	Sixth avenue	Ninety-eighth	Ninety-ninth	131 25
20799	Both	Seventieth	Cregier avenue	Seipp avenue	250 60
20805	Both	Eighty-sixth	Superior avenue	Green Bay avenue	184 10
20807	East	Bissell	Clay	Center	84 35
20808	Both	Belmont avenue	Racine avenue	Perry avenue	570 15
20809	North	Belmont avenue	Western avenue	North branch Chicago river	403 90
20814	North	Lake	Homan avenue	Central Park avenue	123 85
20815	Both	Flournoy	Oakley avenue	Western avenue	131 20
20816	North	Forty-ninth	Wabash avenue	Michigan avenue	69 30
20817	North	Berteaue avenue	Perry	Clark	264 95
20818	North	Forty-first	Lake avenue	Ellis avenue	67 55
20819	East	Farrell	Lyman	Thirty-first	97 80
20820	Both	Carroll avenue	Sacramento avenue	Francisco	186 20
20821	Both	Clark	School	Newport avenue	317 80
20822	West	Kedzie avenue	Thirty-ninth	Joseph	92 40
20823	Both	Lafin	Forty-fifth	Forty-seventh	677 25
20824	North	Forty-sixth	Loomis	Ashland	250 95
20825	Both	Gross avenue	Ashland avenue	Loomis	580 50
20826	East	West Forty-first	Colorado avenue	Lexington	53 15



20897	South	Fifty-eighth	Michigan avenue.	Indiana avenue	52 85
20898	Both	Eighty-seventh	Vincennes avenue.	Elizabeth	65 10
20899	Both	Wentworth avenue	Thirty-ninth	Forty-seventh	2,090 68
20897	Both	Sixty-third	State	Cottage Grove avenue	1,786 84
20898	South	Lawrence avenue	Holcomb avenue	Elston avenue.	525 91
20874	Both	Pearl	Delaware avenue.	West Fortieth.	114 24
20875	Both	Seventh avenue	Nineteenth	100th	114 24
20876	Both	Thirty-second	Ashland avenue	Paulina	183 05
20886	Both	James avenue.	Laurel	Benson	282 80
20887	North	Sixteenth	Forty-second	Forty-fourth	410 52
20888	Both	Webster	Western avenue	Lincoln avenue	342 30
20889	Both	Wilson avenue	Clark	Ashland avenue.	411 60
20904	Both	Polk	California avenue	Kedzie avenue	228 55
20905	Both	Seventy-fourth	May	Aberdeen	112 35
20907	East	Madison avenue.	Sixty-seventh	Sixty-ninth	434 70
20908	East	Seipp avenue	Sixty-ninth	Seventieth.	127 40
20909	Both	Washington	Albany avenue.	Park avenue.	288 40
20910	East	Sherman	Sixty-third	Sixty-seventh.	455 70
20911	South	Forty-fifth	Ashland avenue.	Loomis.	343 36
20912	North	Thirty-ninth	Stewart avenue	Wallace	243 88
20913	South.	Sixty-fifth	Perry avenue	LaFayette avenue.	46 90
20954	Both.	Curtis.	Stanwood avenue	118th	277 55
20955	North	Fifty-ninth	State	Prairie avenue	287 70
20956	North	Lake.	West Forty-eighth	West Fifty-second.	301 35
20957	Both.	Marshfield avenue	Thirty-fourth	Thirty-seventh.	677 45
20958	East	Linden avenue	Sixty-ninth	Seventieth.	20 00
20959	Both.	Racine avenue	Clybourn avenue	Fullerton avenue.	585 42
20960	Both.	Mitchell avenue.	Selwyn avenue.	Crawford avenue	372 57
20961	Both.	Linden avenue.	Humboldt boulevard.	Fullerton avenue.	368 61
20962	Both.	Lawrence avenue.	Commercial avenue.	Clark	641 19
20963	Both.	Noble	Division	Sloan	125 10
20964	Both.	Bingham	Cornelia	Armitage avenue.	489 65
20965	Both.	Fullerton avenue	Western avenue.	C. & N-W. Ry	390 40
20966	Both.	Forrest avenue.	Fullerton avenue.	Elston avenue	238 35
20967	Both.	Hoxie avenue.	104th	109th	682 11
20968	Both.	Eighty-ninth	Cottage Grove avenue.	Dauphin avenue	337 28
20969	East	Ayers avenue	Armitage avenue.	Dickens avenue.	285 75
20970	Both.	Eighty-second	Ontario avenue	Commercial avenue.	226 80
20971	Both.	Avenue J.	Ninety-sixth	106th	433 65
20996	Both.	Kedzie avenue	Grand avenue.	Division.	389 55
20997	Both.	Luther.	Rockwell	Washenaw avenue.	330 05
20999	Both	VanBuren	Kedzie avenue	Central Park avenue.	303 10

## PLANK SIDEWALKS—CONTINUED.

No. of Warrant	SIDE OF STREET.	NAME OF STREET.	FROM	TO	AMOUNT.
21000	Both	Noble.	Milwaukee avenue.	Division.	\$ 357 85
21001	Both	Ninety-fifth.	Cottage Grove avenue.	St. Lawrence avenue	100 80
21002	Both	Union avenue.	Twenty-sixth.	Twenty-eighth.	235 60
21003	Both	Ninety-third.	Anthony avenue	Yates avenue	306 95
21025	Both	Kedzie avenue.	Lake.	Congress	241 80
21026	Both	Harrison	Rockwell	Crawford avenue.	2,534 70
21027	Both	East Ravenswood Park.	Webster avenue	Wilson avenue	635 12
21054	Both	West Twenty-fourth	Whipple	Southwest boulevard	343 85
21055	West	Grant avenue	Wabansia avenue	North 250 ft.	81 20
21056	Both	Sheridan	Beach.	Augusta.	557 04
21086	Both	Fulton	Fiftieth.	Fifty second.	152 00
21087	Both	Vincennes avenue	Sixty-fifth	Seventieth	374 15
21088	Both	West Thirtieth	Wood.	Ogden avenue	928 37
21089	East.	Sheffield avenue	Belmont avenue.	Fletcher	115 60
21090	Both	McChesney avenue.	Sixty-third	Sixty-fifth	159 25
21091	Both	Seventy-first.	St. Lawrence avenue	Langley avenue	180 95
21092	Both	Seventy-fifth	Cottage Grove avenue	Langley avenue	158 90
21093	West	St. Lawrence avenue	Seventieth	Seventy-first.	136 50
21094	Both	Huron	Irving Park boulevard.	Elston avenue	440 55
21095	Both	Seventieth.	Stony Island avenue.	Ill. Cent. R. R.	366 80
21096	Both	Sheridan avenue	Central Park boulevard	Chicago avenue.	557 76
21097	Both	Webster avenue.	Leavitt.	Robey	134 80
21098	Both	Sacramento avenue.	Williams	Thirty-ninth	231 75
21099	Both	West Twelfth	West Fortieth.	West Forty-sixth	508 20
21100	West	Washtenaw avenue.	West Twenty-second	Moore	200 20
21101	Both	Rebecca	California avenue	Rockwell.	252 35
21124	West	Front	115th	Kensington avenue.	328 80
21125	West	Woodlawn avenue.	South Chicago avenue.	Seventy-fourth	199 50
21126	Both	Cottage Grove avenue	Eighty-ninth	Eighty-ninth place	215 60
21127	Both	Ashland avenue.	Julian.	Brigham	151 20
21129	East.	California avenue	C. & N.-W. Ry	Garden avenue.	86 40
21140	South	Thirty-sixth	Halsted	Auburn avenue	67 50
21141	Both	Thirty-third court	Auburn avenue	Laurel	124 00
21142	Both	Thirty-second	Hoyle avenue	Lundy's Lane.	210 70
21143	Both	Wabash avenue	Fifty-sixth.	Sixty-third	1,129 60
21144	Both	Fifty-eighth	Ellis avenue	Ingleside avenue	234 40



21145	Both	Fifty-sixth	Wabash avenue	Indiana avenue	300 30
21146	Both	Francis	California avenue	Point	284 90
21147	North	West Fourteenth	Huron	Robey	38 40
21148	Both	Keith	Chicago avenue	Chicago avenue	93 60
21149	Both	Ward	Clybourn avenue	Fullerton avenue	338 45
21150	North	Thirty-sixth	Western avenue	California avenue	225 40
21151	Both	Thomas	Western avenue	California avenue	90 00
21152	Both	West Twenty-second	Wood	Pan Handle Ry	503 10
21153	East	Crawford avenue	Kinzie	Lake	239 75
21154	East	Kedzie avenue	West Twenty-second	C., B. & Q. R. R.	70 80
21155	Both	Dudley	Armitage avenue	Hervey	48 00
21156	Both	Central Park avenue	Grand avenue	Chicago avenue	112 80
21187	South	Thirty-sixth	Western avenue	Albany avenue	673 75
21188	East	Marquette avenue	Ninety-second	Ninety-third	134 00
21249	Both	Cologne	Deering	Fuller	133 00
21250	Both	Thirty-fourth	Union avenue	Emerald avenue	223 20
21251	Both	Campbell avenue	Division	Jane	56 80
21252	Both	California avenue	Ogden avenue	C., B. & Q. R. R.	238 35
21253	East	Ontario avenue	Eighty-ninth	Ninetieth	132 00
21254	West	Leavitt	Archer avenue	Thirty-seventh	247 80
21263	Both	Cortland	California avenue	Kedzie avenue	228 90
21264	South	Thirty ninth	Butler	C. & W. L. Ry	183 75
21265	Both	Cleaver	Division	Milwaukee avenue	219 00
21287	East	Yorktown	Thirty-fourth	Thirty-fifth	84 40
21288	Both	Haynes court	Archer avenue	Lyman	94 00
21289	Both	Thirty-fourth	Ashland avenue	Wood	372 05
21290	Both	Thirty-fourth	Wood	Archer avenue	406 35
21291	North	Thirty seventh	Ashland avenue	Wood	255 00
21292	South	Thirty-first	Wood	Hoyle avenue	540 80
21293	Both	Kedzie avenue	Douglas Park boulevard	Ninetieth	355 52
21294	West	Kedzie avenue	West Twelfth	Douglas Park boulevard	146 80
21295	North	Chicago avenue	Milwaukee avenue	Carpenter	158 40
21296	Both	Thirty-fourth	Emerald avenue	Halsted	99 20
21297	North	Thirty-eighth	Kedzie avenue	Central Park avenue	404 91
21298	Both	Atrill	Milwaukee avenue	Stave	217 00
21299	Both	Rockwell	Parmelee	West Twenty-second	538 88
21300	Both	Butler	Thirty-seventh	Thirty-eighth	115 50
21311	Both	California avenue	C., B. & Q. R. R.	Twenty-second	670 50
21312	North	Twentieth	Oakley avenue	Western avenue	74 00
21071	Both	Colorado avenue	California avenue	West Fortieth	2,341 43
Total					\$ 95,623 99



## CEMENT SIDEWALKS.

No. of Warrant.	SIDE OF STREET.	NAME OF STREET.	FROM	TO	AMOUNT.
19960	North	Twenty-sixth	State	Ill. Cent. R. R.	\$ 522 60
19962	Both	Dearborn	Twenty-sixth	Twenty-ninth	1,432 60
19978	Both	Wright	Fifty-fifth	Sixty-third	9,702 00
20089	Both	Lexington avenue	Sixty-fifth	Sixty-seventh	2,690 80
20090	Both	Fifty-fourth	Woodlawn avenue	Drexel avenue	3,172 50
20108	Both	Monroe avenue	Fifty-third	Fifty-fifth	2,288 60
20109	East	Ellis avenue	Bowen avenue	Forty-second	680 00
20131	Both	Thirty-seventh	Ellis avenue	Ill. Cent. R. R. right of way	336 00
20132	Both	La Salle	Division	North Clark	819 20
20144	Both	Jackson	Clark	C. M. & St. P. Ry.	4,908 60
20145	Both	Adams	Francisco	Sacramento avenue	570 80
20146	North	Fifty-third	Woodlawn avenue	Alley west	213 20
20147	North	Congress	Washtenaw avenue	California avenue	225 00
20151	Both	York place	North Clark	Evanston avenue	845 00
20152	Both	Farwell avenue	Clark	Grand avenue	1,303 90
20153	South	Jackson	Clark	Forest avenue	156 00
20154	West	Waubun avenue	Oakdale avenue	Wellington avenue	379 60
20155	East	Waubun avenue	Oakdale avenue	150 feet north	195 00
20156	East	Calumet avenue	Nineteenth	Twentieth	424 20
20159	Both	Eda	State	Indiana avenue	2,273 40
20162	North	Greenleaf avenue	Railway avenue	Central	248 60
20170	Both	Englewood avenue	Wentworth avenue	Halsted	7,682 60
20211	Both	Spaulding avenue	Ogden avenue	Twenty first	1,135 40
20265	South	Twelfth	Michigan avenue	Indiana avenue	300 00
20266	South	Berteau avenue	Perry	Ashland avenue	278 60
20267	Both	Waveland avenue	Block 6 & 7, Hundley's subdivn.	Sheffield avenue	1,216 80
20281	Both	Forestville avenue	Forty-fifth	Forty-sixth	1,147 50
20282	Both	Hope avenue	Sixty-third	Sixty-fifth	2,825 20
20283	Both	Forty-eighth	Vincennes avenue	Grand boulevard	951 60
20284	Both	Robertson avenue	Starr avenue	Grace avenue	807 30
20285	South	Thirty-ninth	Grand boulevard	Vincennes avenue	1,352 00
20289	South	Fifty-third	Woodlawn avenue	Lexington avenue	475 80
20295	Both	Palmer avenue	Leland avenue	Wilson avenue	1,425 20
20296	Both	Thirty-seventh	State	Grand boulevard	3,617 75
20380	Both	Belmont avenue	Sheffield avenue	Lake View avenue	4,037 30
20397	East	Forest avenue	Touhy avenue	Morse avenue	1,976 80

20398	Both	Claremont avenue.	Flournoy	Polk	1,075 20
20399	West	Claremont avenue.	Van Buren	Harrison	417 20
20475	Both	Adams	Homan avenue.	Central Park avenue.	2,558 40
20477	North	Sunnyside avenue.	Clark	Beacon avenue.	586 30
20503	West	Kimbark avenue	Fifty-fifth	Fifty-eighth	1,066 00
20511	Both	Lincoln	Lake	Van Buren	5,085 00
20523	Both	Maple	Wentworth avenue	Wallace	2,548 00
20524	Both	Thirty-eighth	State	Wabash avenue	515 20
20537	West	Kimbark avenue	Fifty-second	Fifty-third	418 60
20574	Both	Perry avenue	Sixty-eighth	Sixty-ninth	474 50
20597	Both	Cottage Grove avenue	Twenty-second	Twenty-sixth	2,855 25
20606	Both	Sixty-first	Wentworth avenue	Halsted	2,392 00
20615	Both	Forty-third	Grand boulevard	Indiana avenue	1,516 05
20618	Both	Wilson avenue	Sheridan road	Pemberton	3,951 00
20619	Both	Twentieth	State	Ill. Cent. R. R.	1,492 40
20623	West	Indiana avenue	Twelfth	Thirtieth	741 00
20623	Both	Yale	Sixty-third	Sixty-seventh	1,329 90
20627	Both	Wabash avenue	Fifty-first	Fifty-fifth	3,118 75
20628	North	Sixty-first	Wentworth avenue	Princeton avenue	460 00
20653	Both	Perry avenue	Milwaukee avenue	Fullerton avenue	4,854 20
20654	North	Fletcher	Clark	Sheffield avenue	1,263 60
20655	Both	Stewart avenue	Sixty-first	Sixty-third	1,164 80
20656	Both	Melrose	Lincoln	Wood	1,120 40
20657	West	Grand avenue	Morse avenue	Pratt	950 30
20669	Both	Diversey place.	Wrightwood avenue.	Diversey	795 60
20670	West	Evans avenue.	Forty-fifth	Forty-sixth	431 60
20684	North	Chase street (avenue)	Clark	East to Forest avenue	812 50
20728	Both	Kaleigh court.	Thirtieth	Northern Pacific R. R.	152 60
20786	Both	Ford avenue	Seventy-fifth	Seventy-seventh	3,261 60
20806	West	Grand avenue	Touhy avenue.	Morse avenue	1,972 10
20858	South	Greenleaf avenue.	Clark	C. M. & St. P. Ry.	1,697 80
20861	Both	Sixtieth	Wentworth avenue	Halsted	5,170 10
20862	Both	Wentworth avenue	Sixty-fifth	Sixty-ninth	2,372 90
20864	Both	La Salle.	Fifty-fifth	Sixty-first	6,267 45
20877	South	Lunt avenue.	Clark	C. M. & St. P. Ry.	2,169 70
20940	Both	Leavitt	Madison	Taylor	5,404 60
20972	Both	Vernon avenue.	Sixtieth	Sixty-first	698 10
20973	Both	Lexington.	Rockwell	Western avenue.	422 50
20974	Both	Noble avenue.	Clark	Sheffield avenue	291 20
20975	North	Cornelia	Halsted	Alley west of Rheta	368 20
20976	North	Pratt avenue.	Clark	C. & N. W. Ry.	530 40
20977	Both	Dakin	Sheridan avenue.	Evanston avenue.	1,151 25



## CEMENT SIDEWALKS—CONTINUED.

No. of Warrant.	SIDE OF STREET.	NAME OF STREET.	FROM	TO	AMOUNT.
20998	Both	Adams	Halsted	Center avenue	\$ 1,193 75
21084	Both	Hampden court	Deming court	North End	730 72
21085	Both	Leland avenue	Robey	West Ravenswood Park	1,206 35
21105	Both	Wrightwood avenue	Clark	Lake View avenue	980 20
21106	South	Maple	Dearborn avenue	East 150 feet	233 50
21107	West	Indiana avenue	Twenty-third	Twenty-fourth	293 10
21120	North	Fullerton avenue	Lincoln avenue	Sheffield avenue	689 50
21131	Both	Park avenue	Homan avenue	Kedzie avenue	2,713 50
21122	Both	Noble avenue	Racine avenue	Sheffield avenue	790 40
21123	Both	Montrose avenue	Evanston avenue	C., M. & St. P. Ry.	598 00
21128	Both	Fifty-third	Woodlawn avenue	Kimbark avenue	535 60
21189	North	Wellington	Sheffield avenue	Halsted	730 20
21189	Both	Wilson avenue	West Ravenswood Park	Winchester avenue	337 60
21277	West	Stony Island avenue	Seventy-third	Seventy-fifth	1,620 68
21278	Both	Seventy-second	Stony Island avenue	Ill. Cent. R. R.	2,095 00
21279	Both	Carpenter	Washington	Madison	538 35
21302	Both	Seventy first place	Ill. Cent. R. R.	Stony Island avenue	988 75
21303	East	May (Fremont)	Wellington	Diversey avenue	860 60
21304	West	Stony Island avenue	Seventy-first	Seventy-third	1,127 50
21305	West	Linden (Magnolia)	Argyle	Lawrence avenue	1,607 04
21324	Both	Emerald avenue	Sixty-seventh	Sixty-ninth	406 70
21325	Both	Shields avenue	Fifty-fifth	Fifty-seventh	1,158 96
21326	North	Division	Clark	Lake Shore drive	419 90
21335	Both	Surf	Evanston avenue	Lake View avenue	1,325 00
21337	West	Lake View avenue	Fullerton avenue	Wrightwood avenue	433 80
21338	Both	Deming court	North Clark	Lake View avenue	767 50
Total					\$ 162,730 80



## STONE SIDEWALKS.

No. of Warr't.	SIDE OF STREET.	NAME OF STREET.	FROM	TO	AMOUNT.
20091	West	Sherman	Jackson	Van Buren	\$ 1,728 00
20157	East	Market	Washington	Randolph	5,890 00
20160	Both	Dearborn	Jackson	Polk	18,020 00
20225	Both	Eggleston avenue	Seventy-first	Seventy-second	1,470 00
20268	Both	Walton place	North State	Rush	418 60
20897	South	Chicago avenue	Clark	50 feet east	1,250 00
20872	Both	Oak	Clark	Eastern terminus	2,528 40
Total					\$ 31,305 00

## GAS LAMP POSTS.

No. of Warr't.	No. of Posts.	NAME OF STREET.	FROM	TO	AMOUNT.
19961	6	Main	Archer avenue	Chicago river	\$ 192 00
19979	38	Bonney avenue	Ogden avenue	Douglas Park boulevard	1,111 50
19999	11 & conn.	Sheridan	Bloomingtondale road	Armitage avenue	1,187 00
20007	17	Gresham	Douglas Park boulevard	Crawford avenue	544 00
20013	12	Sheldon	Grace	Graceland avenue	384 00
20014	6	Clarence avenue	Grace	Byron	192 00
20015	31	Troy	Twenty-second	Twenty-sixth	961 00
20016	12	Center	Southport avenue	Evanston avenue	384 00
20017	5	Thirty-sixth	State	Armour avenue	160 00
20021	20	West Twelfth	West Fortieth	Douglas Park boulevard	640 00
20028	27	Carpenter	Fifty-fifth	Fifty-ninth	887 00
20029	14	Seventy-ninth	Wendell avenue	Railroad avenue	448 00
20030	8	Ontario avenue	Nineteieth	Ninety-second	255 00
20031	6	Washburne avenue	Lincoln	Robey	192 00
20101	3	Phinney avenue	Scott	Van Buren	101 00
20111	7	West Fifteenth	Wood	Lincoln	23 48
20112	14	Fleetwood	North avenue	Blackhawk	101 37
20113	68	Sixty-third	State	Drexel avenue	33 40
20114	40	Commercial avenue	Seventy-ninth	Eighty-seventh	194 77
20116	30	Laughton	Western avenue	California avenue	17 76

## GAS LAMP POSTS—CONTINUED.

No. of Warrant.	No. of Posts.	NAME OF STREET.	FROM	TO	AMOUNT.
20119	53	Armour avenue	Forty seventh	Fifty-fifth	\$ 1,590 00
20120	32	Railroad avenue	Seventy-first	Seventy-fifth	960 00
20121	13	Melrose	Laurel avenue	Elston road	384 00
20122	26	West Fourteenth	Wood	Leavitt	806 00
20129	33	Rockwell	West Twelfth	West Eighteenth	990 00
20164	24	Madison avenue	Sixty-ninth	Seventy-third	748 00
20165	42	Kinzie	Paulina	Oakley avenue	1,302 00
20168	6	Maple	Wallace	Wright	192 00
20169	6	Rosenmerkel	Wallace	Wright	192 00
20216	13	Fiftieth	Woodlawn avenue	Madison avenue	455 00
20233	9	Seventy-first	Emerald avenue	Wallace	288 00
20234	25	St. Louis avenue	Twenty-second	Twenty-sixth	868 00
20235	13	Humboldt	Byron avenue	Palmer avenue	416 00
20236	12	Seventy-second place	Nutt avenue	Jefferson avenue	384 00
20238	5	Olga	Waveland avenue	Grace	160 00
20239	7	Grace	Southport avenue	Ashland avenue	224 00
20321	13	Green	Sixty-first	Sixty-third	416 00
20322	2	Diversey avenue	Western avenue	250 feet west	69 00
20323	35	Paulina	Graceland avenue	Roscoe	1,085 00
20328	38	North Fifty-ninth	Sheridan avenue	Ashland avenue	1,178 00
20329	5	Seminary avenue	Center	Maud avenue	160 00
20350	5	Oak Grove avenue	Racine avenue	Clark	160 00
20332	15	Turner avenue	Twelfth	Douglas Park boulevard	480 00
20333	10	Byron avenue	California avenue	Humboldt Park boulevard	320 00
20334	8	Pleasant place	Western avenue	Perry avenue	356 00
20335	19	Mozart	Armitage avenue	Palmer avenue	603 00
20337	30	Trumbull avenue	West Twenty-second	West Twenty-sixth	930 00
20338	15	Grand avenue	Clark	East Ravenswood Park	480 00
20339	2	Lawrence avenue	Robey	Lyman	69 00
20340	8	Prairie avenue	Fifty-ninth	Sixtieth	256 00
20411	7	Twenty-seventh	Halsted	Leo	224 00
20342	8	Calumet avenue	Fifty-ninth	Sixtieth	256 00
20343	7	Augusta	Western avenue	Campbell avenue	324 00
20344	12	Ward	Clybourn avenue	Fullerton avenue	384 00
20349	14	Fifty-first court	Halsted	Morgan	448 00
20350	12	West Van Buren	Homan avenue	Central Park avenue	384 00



20441	25	Atlantic .....	Forty-seventh .....	Fifty-first .....	775 00
20442	2	Newport avenue .....	Racine avenue .....	C., M. & St. P. Ry. ....	69 00
20444	6	Kimberk avenue .....	Forty-seventh .....	Forty-ninth .....	192 00
20445	1	Forty-fourth .....	Sidney court .....	Lake avenue .....	37 00
20446	2	Orchard .....	Lake avenue .....	Oakenwald avenue .....	69 00
20447	14	Fifty-fourth court .....	Halsted .....	Wallace .....	448 00
20448	20	Union avenue .....	Fifty-seventh .....	Sixtieth .....	640 00
20449	31	School .....	Clark .....	Lincoln .....	961 00
20450	17	Homer .....	Western avenue .....	Washtenaw avenue .....	544 00
20453	7	Cloud court .....	State .....	Wentworth avenue .....	234 00
20454	20	Aberdeen .....	Fifty-first .....	Fifty-fourth court .....	640 00
20501	39	Wood .....	Thirty-eighth .....	Archer avenue .....	1,144 65
20538	11	Fifty-fourth .....	Kimberk avenue .....	Lake avenue .....	341 00
20539	7	Bristol avenue .....	Wentworth avenue .....	Tracey avenue .....	217 00
20580	61	Lincoln avenue .....	Addison .....	Montrose boulevard .....	1,891 00
20581	18	Atlantic .....	Fifty-fifth .....	Fifty-eighth .....	576 00
20583	6	Princeton avenue .....	Bristol .....	Goshen .....	192 00
20584	6	Raleigh court .....	Thirteenth .....	Northern Pacific R. R. ....	192 00
20542	3	Sixty-sixth .....	State .....	Wabash avenue .....	101 00
20543	15	Drummond avenue, east side .....	Augusta .....	Division .....	480 00
20545	12	Homer .....	Robey .....	Gross Park avenue .....	384 00
20552	8	Belle Plaine avenue .....	Southport avenue .....	Perry avenue .....	256 00
20582	16	Ontario avenue .....	Seventy-ninth .....	Eighty-first .....	512 00
20673	7	Fortieth .....	Vincennes avenue .....	Langley avenue .....	224 00
20674	30	Avers avenue .....	Kinzie .....	Chicago avenue .....	930 00
20675	24 & 7 cona.	Springfield avenue .....	Kinzie .....	Chicago avenue .....	853 00
20676	2	Forest avenue .....	Grand avenue .....	Weber avenue .....	69 00
20677	5	La Salle .....	Fifty-fourth .....	Garfield boulevard .....	175 00
20749	15	North Leavitt .....	Belmont avenue .....	Clybourn avenue .....	480 00
20750	31	Hamlin avenue .....	Kinzie .....	Chicago avenue .....	1,023 00
20751	3	Fifty-third .....	Ellis avenue .....	Ingleside avenue .....	101 00
20754	4	Sixty-seventh .....	Alley east of Wabash avenue .....	West side of Wabash avenue .....	130 50
20755	9	Fifty-sixth .....	Stewart avenue .....	Wallace .....	285 00
20762	7	Evans avenue .....	Sixty-seventh .....	Sixty-eighth .....	224 00
20761	7	Forty-first .....	Halsted .....	Union avenue .....	224 00
20789	55	South Fortieth avenue .....	West Sixteenth .....	Harrison .....	1,614 25
20793	6 & 1 cona.	Flournoy .....	Francisco .....	Sacramento avenue .....	183 50
20797	6	West Fortieth .....	Colorado avenue .....	Lexington .....	192 00
20801	12	Emerald avenue .....	Fifty-second .....	Fifty-fourth .....	384 00
20803	8	St. Lawrence avenue .....	Sixty-sixth .....	Sixth-seventh .....	256 00
20808	15	Edgewater place .....	Clark .....	Southport avenue .....	480 00
20878	4	Vilas place .....	Leavitt .....	Hamilton avenue .....	130 50



## GAS LAMP POSTS—CONTINUED.

No. of Warrant.	No. of Posts.	NAME OF STREET.	FROM	TO	AMOUNT. \$
20879	13	North Hermitage avenue.	Irving Park avenue	Berteau avenue	416 00
20880	7	Berenice avenue	Lincoln avenue	C. & N.-W. Ry.	224 00
20881	5	Lyman avenue.	Sunnyside avenue	Montrose avenue.	160 00
20882	11	North Hamilton avenue.	Montrose boulevard.	Wilson avenue.	332 00
20883	27	Melrose.	Robey	Western avenue.	864 00
20884	20	Otto.	Ashland avenue	C. E. & L. S. R. R.	640 00
20885	27	Ashland avenue.	Devon (Church st.) avenue	Thirty-fifth.	837 00
20890	56	North Clark.	North Clark.	Ester (Jackson) avenue.	1,643 60
20891	24	Farwell avenue.	North Clark.	Southport avenue.	708 40
20892	14	Ester (Jackson) avenue	North Clark.	Arnold (Grand) avenue.	424 90
20893	7	Arnold (Grand) avenue.	Pratt avenue	North Shore (North) avenue.	212 45
20894	7	Perry (Maple) avenue	Pratt avenue	North Shore (North) avenue	212 45
20895	12	Lunt avenue	North Clark.	Arnold (Grand) avenue.	364 20
20896	7	Newgarth (Lincoln) avenue.	Pratt avenue	North Shore (North) avenue.	212 45
20897	4	Fay avenue.	Pratt avenue	North Shore (North) avenue	133 90
20898	7	Calumet avenue	Sixty-eighth.	Sixty-ninth.	212 45
20899	14	North Shore (North) avenue	Fay avenue	Southport avenue.	424 90
20900	7	Southport	Pratt avenue	North Shore (North) avenue.	212 45
20901	25	Morse avenue	North Clark	Southport avenue.	733 75
20902	10	Pratt avenue	North Clark	Arnold (Grand) avenue	303 50
20914	4	West Forty-sixth.	Wallace.	Union	133 90
20915	6	Herndon	Addison avenue	Waveland (Nellie)	182 10
20916	13	Yorktown	Thirty-third	Thirty-fifth.	394 55
20917	7	Byron	North Clark	Southport avenue.	212 45
20918	5	Ward (Haugan).	Grace.	Byron	151 75
20919	5	Herndon	Grace.	Byron	151 75
20920	9	Leavitt	Thirty sixth	Thirty-seventh.	273 15
20921	8	Victor	Wayne avenue.	Evanston avenue.	243 80
20922	6	Wilton avenue.	Grace	Sheridan road	182 10
20923	9	Francis.	Southport avenue	Magnolia (Charlton) avenue.	273 15
20924	8	Swift	Ridge avenue	Francis	242 80
20925	6	Wilson avenue	Lincoln avenue	North Leavitt	182 10
20926	13	Oakley avenue	Thirty-third	Thirty-fifth	394 55
21029	20	Greenleaf avenue	North Clark	Perry (Maple) avenue.	607 00
21030	14	Pratt avenue	Arnold (Grand) avenue	Southport avenue	424 90
21033	5	Emerald avenue	Sixty-fourth	South 375 feet.	151 75

21034	Paulina .....	Thirty-third .....	Thirty-fifth .....	303 50
21038	Lincoln avenue.....	Montrose avenue.....	Berwyn avenue .....	2,054 50
21039	Almond .....	West Taylor.....	Ashland .....	65 70
21040	South Fortieth avenue.....	West Twenty-second.....	West Sixteenth .....	989 20
21042	Summerville avenue.....	Clark .....	Southport avenue .....	303 50
21043	Seventy-ninth place.....	Commercial (Railroad) avenue .....	Coles (Arthur) avenue .....	242 80
21044	Balmoral avenue.....	Clark .....	Southport avenue .....	303 50
21045	Berwyn avenue.....	Clark .....	Southport avenue .....	303 50
21046	Southport avenue.....	Clark .....	Southport avenue .....	333 85
21047	Southport avenue.....	Balmoral avenue.....	Foster avenue .....	364 20
21057	North Forty-seventh avenue .....	Lake .....	Fulton .....	99 50
21058	Lake .....	North Forty-fourth avenue .....	North Forty-sixth avenue .....	656 50
21059	North Forty-fourth avenue .....	Lake .....	Fulton .....	68 00
21060	St. George's court .....	Milwaukee avenue .....	Stave .....	99 50
21061	Prindville .....	Milwaukee avenue .....	Stave .....	128 50
21062	Attrill .....	Milwaukee avenue .....	Stave .....	99 50
21063	Point .....	Cornelia .....	Amritage avenue.....	128 50
21064	Lake .....	North Fortieth avenue.....	North Forty-fourth avenue .....	1,220 00
21065	West Forty-eighth .....	Honore (Goodspeed) .....	Marshfield (Dryer) avenue .....	535 50
21078	Lawrence avenue .....	Sheridan Road .....	Lake Michigan .....	409 50
21079	Frankfort .....	Hoynes avenue.....	Western avenue .....	567 00
21080	Rhine .....	North Campbell avenue .....	North Maplewood avenue.....	128 50
21081	Catalpa place.....	Edgewood avenue.....	West Fullerton avenue .....	189 00
21082	Western avenue .....	Roscoe .....	Belmont avenue .....	409 50
21083	North Hoyne (Huck) avenue.....	Lawrence avenue .....	Clay avenue.....	441 00
21103	Mechanic (Arthur).....	West Sixteenth .....	West Seventeenth.....	96 00
21104	Burling (Hall).....	500 feet north of Diversey avenue .....	Northern terminus .....	151 75
21172	East Ravenswood Park .....	Lawrence avenue .....	Ainslee (Tuttle avenue).....	128 50
21194	Greenleaf avenue .....	North Robey (Grove) .....	North Clark (Chicago avenue) .....	598 50
21195	Exchange avenue .....	Eighty-eighth .....	Eighty-ninth .....	128 50
21196	Ninety-sixth .....	Commercial avenue .....	Exchange avenue .....	68 00
21197	Seventy-fourth .....	Lake avenue .....	Bond avenue .....	99 50
21198	Arnold (Grand) avenue.....	Pratt avenue .....	Greenleaf avenue .....	315 00
21199	Lunt .....	North Clark (Chicago avenue) .....	North Robey (Grove) .....	630 00
21200	South Paulina.....	North Thirty-fifth .....	West Thirty-seventh .....	441 00
21266	Eighty-eighth .....	Escanaba avenue .....	Commercial avenue .....	157 50
21320	May .....	West Fifty-ninth.....	West Sixty-third.....	823 50
Total .....				\$ 71,650 93



## GAS LAMP POSTS—CONTINUED.

No. of Warr't.	No. of Posts.	NAME OF STREET.	FROM	TO	AMOUNT.
20879	13	North Hermitage avenue.	Irving Park avenue	Berteau avenue.	\$ 416 00
20880	7	Berenice avenue.	Lincoln avenue.	C. & N.-W. Ry.	224 00
20881	5	Lyman avenue.	Sunnyside avenue.	Montrose avenue.	160 00
20882	11	North Hamilton avenue.	Montrose boulevard.	Wilson avenue.	352 00
20883	27	Melrose.	Robey.	Western avenue.	864 00
20884	20	Otto.	Ashland avenue	C. E. & L. S. R. R.	640 00
20885	27	Ashland avenue.	Devon (Church st.) avenue	Thirty-fifth.	837 00
20886	56	North Clark.	North Clark.	Ester (Jackson) avenue.	1,643 60
20891	24	Farwell avenue.	North Clark.	Southport avenue.	708 40
20892	14	Ester (Jackson) avenue.	North Clark.	Arnold (Grand) avenue.	424 90
20893	7	Arnold (Grand) avenue.	Pratt avenue.	North Shore (North) avenue.	212 45
20894	7	Perry (Maple) avenue.	Pratt avenue.	North Shore (North) avenue.	212 45
20895	12	Lunt avenue.	North Clark.	Arnold (Grand) avenue.	364 20
20896	7	Newgarth (Lincoln) avenue.	Pratt avenue.	North Shore (North) avenue.	312 45
20897	4	Fay avenue.	Pratt avenue.	North Shore (North) avenue.	133 90
20898	7	Calumet avenue.	Sixty-eighth.	Sixty-ninth.	212 45
20899	14	North Shore (North) avenue	Fay avenue.	Southport avenue.	424 90
20900	7	Southport.	Pratt avenue.	North Shore (North) avenue.	212 45
20901	25	Morse avenue.	North Clark.	Southport avenue.	733 75
20902	10	Pratt avenue.	North Clark.	Arnold (Grand) avenue.	303 50
20914	4	West Forty-sixth.	Wallace.	Union.	133 90
20915	6	Herndon.	Addison avenue.	Waveland (Nellie).	182 10
20916	13	Yorktown.	Thirty-third.	Thirty-fifth.	394 55
20917	7	Byron.	North Clark.	Southport avenue.	212 45
20918	5	Ward (Haugan).	Grace.	Byron.	151 75
20919	5	Herndon.	Grace.	Byron.	151 75
20920	9	Leavitt.	Thirty-sixth.	Thirty-seventh.	273 15
20921	8	Victor.	Wayne avenue.	Evansston avenue.	242 80
20922	6	Wilton avenue.	Grace.	Sheridan road.	182 10
20923	9	Francis.	Southport avenue.	Magnolia (Charlton) avenue.	273 15
20924	8	Swift.	Ridge avenue.	Francis.	242 80
20925	6	Wilson avenue.	Lincoln avenue.	North Leavitt.	182 10
20926	13	Oakley avenue.	Thirty-third.	Thirty-fifth.	394 55
21029	20	Greenleaf avenue.	North Clark.	Perry (Maple) avenue.	607 00
21030	14	Pratt avenue.	Arnold (Grand) avenue.	Southport avenue.	424 90
21033	5	Emerald avenue.	Sixty-fourth.	South 375 feet.	151 75



21034	Paulina .....	Thirty-third .....	Thirty-fifth .....	303 50
21038	Lincoln avenue .....	Montrose avenue .....	Berwyn avenue .....	2,054 50
21039	Almond .....	West Taylor .....	Ashland .....	65 70
21040	South Fortieth avenue .....	West Twenty-second .....	West Sixteenth .....	939 20
21042	Summerville .....	Clark .....	Southport avenue .....	303 50
21043	Seventy-ninth place .....	Commercial (Railroad) avenue .....	Coles (Arthur) avenue .....	242 80
21044	Balmoral avenue .....	Clark .....	Southport avenue .....	303 50
21045	Farragut .....	Clark .....	Southport avenue .....	303 50
21046	Berwyn avenue .....	Clark .....	Southport avenue .....	333 85
21047	Southport avenue .....	Balmoral avenue .....	Foster avenue .....	364 20
21057	North Forty-seventh avenue .....	Lake .....	Fulton .....	99 50
21058	Lake .....	North Forty-fourth avenue .....	North Forty-sixth avenue .....	656 50
21059	North Forty-fourth avenue .....	Lake .....	Fulton .....	68 00
21060	St. George's court .....	Milwaukee avenue .....	Stave .....	99 50
21061	Prindiville .....	Milwaukee avenue .....	Stave .....	128 50
21062	Attrill .....	Milwaukee avenue .....	Stave .....	99 50
21063	Point .....	Cornelia .....	Armitage avenue .....	128 50
21064	Lake .....	North Fortieth avenue .....	North Forty-fourth avenue .....	1,220 00
21065	West Forty-eighth .....	Honore (Goodspeed) .....	Marshfield (Dryer) avenue .....	535 50
21078	Lawrence avenue .....	Sheridan Road .....	Lake Michigan .....	409 50
21079	Frankfort .....	Hoynes avenue .....	Western avenue .....	567 00
21080	Rhine .....	North Campbell avenue .....	North Maplewood avenue .....	128 50
21081	Catalpa place .....	Edgewood avenue .....	West Fullerton avenue .....	189 00
21082	Western avenue .....	Roscoe .....	Belmont avenue .....	409 50
21083	North Hoynes (Huck) avenue .....	Lawrence avenue .....	Clay avenue .....	441 00
21103	Mechanic (Arthur) .....	West Sixteenth .....	West Seventeenth .....	96 00
21104	Burling (Hall) .....	500 feet north of Diversy avenue .....	Northern terminus .....	151 75
21172	East Ravenswood Park .....	Lawrence avenue .....	Ainslee (Tuttle) avenue .....	128 50
21194	Greenleaf avenue .....	North Robey (Grove) .....	North Clark (Chicago avenue) .....	508 50
21195	Exchange avenue .....	Eighty-eighth .....	Eighty-ninth .....	128 50
21196	Ninety-sixth .....	Commercial avenue .....	Exchange avenue .....	68 00
21197	Seventy-fourth .....	Lake avenue .....	Bond avenue .....	99 50
21198	Arnold (Grand) avenue .....	Pratt avenue .....	Greenleaf avenue .....	315 00
21199	Lunt .....	North Clark (Chicago avenue) .....	North Robey (Grove) .....	630 00
21200	South Paulina .....	West Thirty-fifth .....	West Thirty-seventh .....	441 00
21266	Eighty-eighth .....	Escanaba avenue .....	Commercial avenue .....	157 50
21320	May .....	West Fifty-ninth .....	West Sixty-third .....	823 50
	Total .....			\$ 71,650 93

## BOULEVARD LAMP POSTS.

No. of Warrant	No. of Posts.	NAME OF STREET.	FROM	TO	AMOUNT. \$
20000	8	Prairie avenue.....	Fifty-first.....	Fifty-second.....	280 00
20018	12	Perry avenue.....	Graceland.....	Berteau avenue.....	420 00
20019	8	Catalpa.....	Southport avenue.....	Perry avenue.....	280 00
20020	8	Mayfair avenue.....	Star avenue.....	Perry avenue.....	280 00
20110	6	Sixty-third.....	Fortieth.....	Grace avenue.....	81 53
20115	13	Michigan avenue.....	Central Park boulevard.....	Forty-first.....	40 06
20117	33	West Harrison.....	Cottage grove avenue.....	Crawford avenue.....	353 87
20125	14 on S. Side.	Sixtieth.....	Fortieth.....	Rhodes avenue.....	490 00
20163	49	West Adams.....	Grand boulevard.....	Forty-sixth.....	1,568 00
20166	5	Ione place.....	Sixty-seventh.....	Vincennes avenue.....	165 00
20167	40	Stony Island avenue.....	Sixtieth.....	Seventy-first.....	1,440 00
20237	6	Vincennes avenue.....	Halsted.....	Sixty-first.....	210 00
20334	2	Montrose boulevard.....	Division.....	Lake Michigan.....	71 00
20325	30	La Salle avenue.....	Flournoy.....	North Clark.....	300 00
20326	18	De Kalb.....	Sixty-second.....	Leavitt.....	180 00
20327	4	Princeton avenue.....	West Fortieth.....	Sixty-third.....	143 00
20331	46	West Congress.....	West Fortieth.....	West Forty-sixth.....	1,564 00
20336	49	Gladys avenue.....	West Fortieth.....	West Forty-sixth.....	1,666 00
20345	4	Seventieth.....	Rhodes avenue.....	St. Lawrence avenue.....	143 00
20346	13	Vernon avenue.....	Sixty-ninth.....	Seventy-first.....	455 00
20347	13	South Park avenue.....	Sixty-eighth.....	Seventieth.....	455 00
20348	7	Rhodes avenue.....	Seventieth.....	Seventy-first.....	245 00
20409	4	Fiftieth.....	Prairie avenue.....	Calumet avenue.....	143 00
20431	8	Fifty-eighth.....	Stewart avenue.....	Wentworth avenue.....	288 00
20432	7	Rhodes avenue.....	Sixtieth.....	Sixty-first.....	245 00
20443	5	Eggleson avenue.....	Seventy-fourth.....	Seventy-fifth.....	175 00
20451	29	St. Lawrence avenue.....	Sixty-seventh.....	Seventy-first.....	986 00
20452	15	Anthony avenue.....	South Park avenue.....	Seventieth.....	525 00
20518	31	Seventy-third.....	Ellington avenue.....	Bond avenue.....	1,240 00
20527	8	Wright.....	Seventy-third.....	Seventy-fourth.....	320 00
20532	26	Calumet avenue.....	Fifty-first.....	Fifty-fifth.....	832 00
20544	5	Stewart avenue.....	Hawthorne avenue.....	Seventy-eighth.....	175 00
20553	7	Calumet avenue.....	Forty-first.....	Forty-second.....	245 00
20554	21	La Salle avenue.....	Chicago avenue.....	Division.....	210 00
20672	2	Fifty-fourth.....	Kimberly avenue.....	Woodlawn avenue.....	75 00
20748	9	Harding avenue.....	Kinzie.....	Chicago avenue.....	650 00



20752	Vincennes avenue	Fiftieth	Fifty-first	175 00
20756	Fillmore	Garfield boulevard	West Fortieth	560 00
20757	West Ohio	Avers avenue	West Fortieth	410 00
20758	West Polk	Garfield boulevard	West Fortieth	560 00
20759	Union avenue	Seventy-fifth	Seventy-sixth	210 00
20776	Fifty-first	Cottage Grove avenue	Grand boulevard	772 00
20800	Boulevard place	Vincennes avenue	St. Lawrence avenue	245 00
20802	Lexington avenue	Fifty-fourth	Fifty-fourth place	175 00
20810	Sixtieth	Vincennes avenue	Rhodes avenue	75 00
20811	West Ohio	Central Park avenue	Avers avenue	808 00
20812	West Ohio	Kedzie avenue	St. Louis avenue	953 00
20903	Chase	North Clark	Lake Michigan	1,371 70
21031	Arnold avenue	Chase	Estes avenue	263 20
21032	May	Fifty-first	Fifty-fourth	658 00
21036	Sixty-fifth (Court) place	Butler (Wright)	Harrell (Honore) avenue	101 20
21037	Clarkson court	Lake	Walnut	101 20
21066	North Winchester (Palmer) avenue	Foster avenue (North Fifty-ninth st.)	Winnemac (Webster) avenue	343 50
21067	North Paulina	Foster avenue	Catalpa avenue	685 00
21070	Rascher avenue	East Ravenswood Park	North Ashland avenue	445 25
21076	Ellis avenue	Forty first	Forty-sixth	816 25
21077	Pine Grove avenue	Irving Park (Graceland) avenue	180 feet north of Sheridan road	101 20
21102	Armour avenue	606.7 ft. south of Garfield boulevard	West Fifty-ninth	239 97
21301	Carpenter	Fifty-fourth	Fifty-fifth	248 50
Total				\$ 27,252 43

## GASOLINE LAMP POSTS.

No. of War'nt.	No. of Posts.	NAME OF STREET.	FROM	TO	AMOUNT.
20128	15	Ferdinand	Paulina	Hoynes avenue	\$ 225 00
21024	33	Austin avenue	West Forty-sixth	Hawkins avenue	453 75
Total					\$ 678 75



**TOTAL ASSESSMENTS FOR YEAR ENDING  
DECEMBER 31, 1895.**

**RECAPITULATION.**

101 Streets, wooden block pavement.....	\$ 1,396,679 15
19 Streets, sheet asphalt pavement .....	438,123 27
25 Streets, macadam pavement.....	257,029 35
7 Streets, vitrified brick pavement .....	114,339 06
5 Streets, granite block pavement .....	51,795 98
50 Alleys, wooden block pavement .....	74,579 31
4 Alleys, granite block and vitrified brick pavement .....	2,653 40
9 Opening and widening .....	156,343 34
2 Curbing and filling .....	9,727 96
277 Water supply pipes .....	481,977 32
99 Water service pipes.....	127,901 50
114 Sewers.....	771,682 06
92 Drains .....	115,150 84
244 Sidewalks, plank .....	95,623 99
104 Sidewalks, cement .....	162,720 80
7 Sidewalks, stone.....	31,305 00
2,465 Lamp posts, gas .....	71,650 93
884 Lamp posts, boulevard .....	27,252 43
48 Lamp posts, gasoline .....	678 75
<b>Total .....</b>	<b>\$ 4,387,214 44</b>

**SUMMARY.**

**STREETS.**

**Wooden Block Pavement:**

North Division.....	\$ 231,496 97	
South Division.....	528,006 78	
West Division.....	637,175 40	
		<hr/> \$ 1,396,679 15

**Sheet Asphalt Pavement:**

South Division.....	\$ 99,890 25	
West Division .....	338,233 02	
		<hr/> 438,123 27

**Macadamized Pavement:**

North Division.....	\$ 106,304 61	
South Division.....	144,724 74	
West Division.....	6,000 00	
		<hr/> 257,029 35

**Vitrified Brick Pavement :**

North Division.....	\$	16,368 42	
South Division.....		47,088 69	
West Division.....		50,881 95	
		<hr/>	\$ 114,339 06

**Granite Block Pavement :**

North Division.....	\$	20,896 80	
South Division.....		7,520 40	
West Division.....		23,378 78	
		<hr/>	51,795 98

**ALLEYS.****Wooden Block Pavement :**

North Division.....	\$	26,158 50	
South Division.....		11,091 15	
West Division.....		37,329 66	
		<hr/>	74,579 31

**Granite Block Pavement :**

South Division.....	\$	1,054 59	
		<hr/>	1,054 59

**Vitrified Brick Pavement :**

South Division.....	\$	1,598 81	
		<hr/>	1,598 81

**Opening and Widening :**

North Division.....	\$	208 30	
South Division.....		150,417 79	
West Division.....		5,717 25	
		<hr/>	156,343 34

**Curbing and Filling :**

North Division.....	\$	2,696 90	
South Division.....		7,031 06	
		<hr/>	9,727 96

**Water Supply Pipes :**

North Division.....	\$	31,878 96	
South Division.....		201,805 08	
West Division.....		248,293 28	
		<hr/>	481,977 32

**Water Service Pipes :**

North Division.....	\$	16,416 50	
South Division.....		53,186 50	
West Division.....		58,298 50	
		<hr/>	127,901 50

## Sewers:

North Division.....	\$	30,175	06	
South Division.....		529,177	18	
West Division.....		212,329	82	
				\$ 771,682 06

## Drains:

North Division.....	\$	16,726	50	
South Division.....		62,000	25	
West Division.....		36,424	09	
				115,150 84

## Plank Sidewalks:

North Division.....	\$	16,659	59	
South Division.....		44,181	75	
West Division.....		34,782	65	
				95,623 99

## Cement Sidewalks:

North Division.....	\$	46,130	56	
South Division .....		89,395	14	
West Division.....		27,195	10	
				162,720 80

## Stone Sidewalks:

North Division.....	\$	4,197	00	
South Division.....		27,108	00	
				31,305 00

## Gas Lamp Posts:

North Division.....	\$	27,061	52	
South Division.....		21,829	47	
West Division .....		22,759	94	
				71,650 93

## Boulevard Lamp Posts:

North Division.....	\$	4,769	85	
South Division.....		13,109	51	
West Division.....		9,373	07	
				27,252 43

## Gasoline Lamp Posts:

West Division.....	\$	678	75	
				678 75

<b>TOTAL .....</b>	<b>\$</b>	<b>4,387,214</b>	<b>44</b>	
--------------------	-----------	------------------	-----------	--



## LIST OF ASSESSMENTS FOR EACH YEAR SINCE 1861.

For the year ending April 1, 1862.....	\$ 42,635 49
For the year ending April 1, 1863.....	46,493 67
For the year ending April 1, 1864.....	389,169 31
For the year ending April 1, 1865.....	103,576 35
For the year ending April 1, 1866.....	802,574 56
For the year ending April 1, 1867.....	317,206 18
For the year ending April 1, 1868.....	1,354,436 48
For the year ending April 1, 1869.....	2,395,683 03
For the year ending April 1, 1870.....	2,336,852 48
For the year ending April 1, 1871.....	2,359,835 89
For the year ending April 1, 1872.....	62,222 25
For the year ending April 1, 1873.....	
For the year ending April 1, 1874.....	749,460 27
For the year ending April 1, 1875.....	723,254 42
For the nine months ending December 31, 1875.....	60,585 72
For the year ending December 31, 1876.....	1,516,081 07
For the year ending December 31, 1877.....	124,498 48
For the year ending December 31, 1878.....	284,900 45
For the year ending December 31, 1879.....	588,963 44
For the year ending December 31, 1880.....	980,895 50
For the year ending December 31, 1881.....	1,227,169 71
For the year ending December 31, 1882.....	1,395,372 98
For the year ending December 31, 1883.....	2,232,757 04
For the year ending December 31, 1884.....	2,857,905 28
For the year ending December 31, 1885.....	2,889,544 80
For the year ending December 31, 1886.....	3,307,567 99
For the year ending December 31, 1887.....	3,160,474 67
For the year ending December 31, 1888.....	3,655,956 78
For the year ending December 31, 1889.....	4,220,869 98
For the year ending December 31, 1890.....	6,987,155 48
For the year ending December 31, 1891.....	8,790,443 29
For the year ending December 31, 1892.....	14,505,701 79
For the year ending December 31, 1893.....	6,001,445 05
For the year ending December 31, 1894.....	2,903 814 16
For the year ending December 31, 1895.....	4,387,214 44
Total for thirty-five years.....	\$84,262,719 03



# Book-keeper's Statement



1. The first part of the document is a list of names and addresses of the members of the committee.

# BOOK-KEEPER'S STATEMENT.

HON. W. D. KENT,

*Commissioner of Public Works.*

DEAR SIR:—I herewith respectfully submit statement in detail of the Receipts and Expenditures of your Department for the year 1895.

## WATER FUND.

Balance to credit, Jan. 1st,  
1895 .....

\$203,155 95

### RECEIPTS.

Amount collected during the  
year for current water rents  
assessed .....

\$2,071,874 09

Amount collected during the  
year for current water  
rents, meter measure-  
ments .....

1,004,203 48

### *Acc't Water Service Cocks.*

Amount received for taps and  
permits, also plumbers'  
licenses and special assess-  
ment work .....

76,679 15

### *Acc't Meters and Private Work.*

Amount received for labor  
and material used in laying  
and repairing water supply  
pipes for elevators and gen-  
eral supply of water, also  
for changing location of  
hydrants and stop cocks  
and repairing meters .....

109,617 18

Carried forward .....

\$3,262,373 90

Brought forward.....	\$3,262,373 90
<i>Acc't West Pump. Works.</i>	
Amount received for scrap iron, empty barrels, etc...	396 37
<i>Acc't Central Pump. Works.</i>	
Amount received for scrap iron.....	57 86
<i>Acc't North Pump. Works.</i>	
Amount received for scrap iron, etc.....	46 78
<i>Acc't Water Pipe and Special Castings.</i>	
Amount received from King & Andrews acc't forfeiture of contract.....	500 00
<i>Acc't Hydrant Wrenches.</i>	
Amount received as de- posit for loan of hydrant wrenches.....	642 00
<i>Acc't Water Pipe Extension.</i>	
Amount received for lower- ing and repairing water pipe.....	18,470 16
<i>Acc't Water Works Shop.</i>	
Amount received for brass borings, lead dross, scrap iron, etc.....	1,298 65
<i>Acc't South Pump. Works.</i>	
Scrap iron sold.....	58 14
Carried forward.....	<hr/> \$3,283,843 86



Brought forward.....	\$3,283,843 86
<i>Acc't Sixth-eighth St. Pump. Works.</i>	
Scrap iron sold .....	25 18
<i>Acc't Lake View Pump. Works.</i>	
Scrap iron sold .....	38 70
<i>Acc't Wash. Heights Pump Works.</i>	
Scrap iron sold .....	6 32
<i>Acc't Repair and Mainte- nance.</i>	
Correction on pay rolls ....	69 75
From private parties to lay water mains .....	71,208 18
Rent of Rookery Lot .....	35,000 04
From Sale of Water Certifi- cates .....	699,185 00
Interest on Certificates sold	4,937 14
W. A. Prendergast.....	100 00
Total receipts.....	<u>\$4,094,414 17</u>

## EXPENDITURES.

<i>Acc't Water Pipe Extension and Water Pipe and Special Castings.</i>	
Labor.....	\$ 335,992 56
Water pipe and special cast- ings .....	161,629 16
Cost of labor and material furnished by Water Works	
Shop .....	31,699 62
Teaming .....	29,871 38
Hydrant rings, covers, stop- cocks, chambers, etc.....	7,728 87
Carried forward.....	\$ 566,921 59

Brought forward.....	\$ 566,921 59	
Lead .....	10,606 11	
Ferrules .....	4,197 79	
Brick .....	11,044 18	
Transfers to Special Assessments.....	1,053 24	
Branches of valves .....	1,586 09	
Plumbing.....	237 75	
Cement .....	5,508 00	
Lumber.....	5,876 91	
Payment of Note No. 3 Metropolitan National Bank .....	4,636 52	
Sundries — car fare, hardware, coal, packing, stationery, advertising, oil, use of pump, blacksmithing, etc.....	8,258 97	\$ 619,927 15
<i>Water Works Repairs.</i>		
Labor.....	\$ 344,516 81	
Cost of labor and material furnished by Water Works Shop.....	23,817 11	
Teaming .....	7,952 30	
Lumber .....	4,524 70	
Hydrant chambers, castings, etc .....	2,247 83	
Sundries .....	3,586 75	
Amount Department.....	2,930 57	
Water supply furnished by Rogers Park Pump .....	6,803 56	396,379 63
<i>Acc't North Pump. Works.</i>		
Labor .....	\$ 49,717 83	
Coal .....	98,998 89	
Repairing engines, boilers, buildings, etc.....	6,419 90	
Gas .....	907 60	
Waste, packing and sundry supplies.....	4,105 83	160,150 05
carried forward.....		\$1,176,456 83

Brought forward.....		\$1,176,456 83	
<i>Acc't West Pump. Works.</i>			
Labor.....	\$	40,278 00	
Coal .....		44,035 92	
Oil and Packing.....		2,736 65	
Repairing engines, boilers, buildings, etc.....		18,550 06	
Gas.....		468 00	
Electric Light Service .....		228 87	
Cement, sand, brick, etc....		894 00	
Waste and sundry supplies..		2,403 77	
Construction. ....		4,351 26	
			113,946 53
<i>Acc't Central Pump. Works.</i>			
Labor .....	\$	27,090 07	
Coal .....		17,769 25	
Oil and packing .....		1,430 39	
Repairing engines, boilers, buildings, etc.....		8,275 64	
Sand, brick and clay.....		294 40	
Gas.....		1,189 80	
Waste and sundry supplies..		1,719 78	
			57,769 33
<i>Acc't South Pump. Works.</i>			
Labor .....	\$	45,354 05	
Coal.....		27,725 92	
Oil and packing.....		778 07	
Repairing engines, boilers, buildings, etc.....		5,434 75	
Gas.....		574 20	
Waste and sundry supplies..		2,249 86	
			82,116 75
<i>Acc't Washington Heights Pump. Works.</i>			
Labor .....	\$	3,148 75	
Coal .....		1,666 99	
Repairing engines, boilers, buildings, etc.....		487 34	
Gas.....		11 80	
Sundries .....		78 20	
			5,393 08
Carried forward.....			\$1,435,682 52



Brought forward . . . .		\$1,435,682 52
<i>Acc't Sixty-eighth Street Pump. Works.</i>		
Labor . . . . .	\$ 35,571 38	
Coal, fuel oil . . . . .	35,051 55	
Repairing engines, boilers, buildings, etc. . . . .	10,991 42	
Oil and packing . . . . .	835 28	
Electric light service . . . . .	1,303 68	
Waste and sundry supplies . .	3,619 23	
Construction . . . . .	527 69	
		87,900 23
<i>Acc't Lake View Pump. Works.</i>		
Labor . . . . .	\$ 23,870 68	
Coal . . . . .	26,900 96	
Oil and packing . . . . .	911 40	
Repairing engines, boilers, buildings, etc. . . . .	8,709 46	
Gas . . . . .	25 20	
Telephone service . . . . .	62 50	
Construction . . . . .	898 45	
Waste and sundry supplies . .	2,477 60	
		63,856 25
<i>Acc't Norwood Park Pump. Works.</i>		
Labor . . . . .	\$ 1,366 97	
Coal . . . . .	378 54	
Repairing engines, boilers, buildings, etc. . . . .	312 52	
Waste, packing and sundry supplies . . . . .	203 63	
		2,261 66
<i>Acc't Lake View Tunnel.</i>		
Labor . . . . .	\$ 5,897 12	
Contractor . . . . .	96,197 90	
Tug service . . . . .	458 00	
Board for Inspectors . . . . .	346 67	
Sundries . . . . .	166 44	
		103,066 13
Carried forward . . . .		\$1,692,766 79

Brought forward.....		\$1,692,766 79
<i>Acc't Sixty-eighth Street Tunnel Extension.</i>		
Labor.....	\$ 3,912 04	
Contractor .....	78,180 82	
Tug service.....	280 93	
Coal .....	1,026 43	
Boilers.....	400 00	
Sundries .....	423 52	
	<hr/>	84,223 74
<i>Acc't Two-Mile Crib.</i>		
Labor.....	\$ 10,267 03	
Tug service.....	2,865 52	
Coal.....	510 30	
Sundries.....	381 39	
	<hr/>	14,024 24
<i>Acc't Four-Mile Crib.</i>		
Labor .....	\$ 5,326 07	
Contractor.....	4,343 27	
Tug service.....	2,932 29	
Coal.....	170 00	
Cash items .....	265 28	
Sundries .....	397 86	
	<hr/>	13,434 77
<i>Acc't Lake View Crib.</i>		
Labor.....	\$ 2,006 41	
Construction.....	100 00	
Board for inspectors.....	60 00	
Tug service.....	1,726 39	
Sundries .....	14 35	
	<hr/>	3,907 15
<i>Acc't Northwest Land Tunnel.</i>		
Labor.....	\$ 23,248 41	
Contractors .....	22,619 89	
Lumber .....	80 37	
Real estate .....	14,000 00	
Cash items .....	576 62	
Sundries.....	29 96	
	<hr/>	60,555 25
Carried forward.....		\$1,868,911 94

Brought forward..... \$1,868,911 94

*Acc't Water Works Shops.*

Sundries acc't, construction, 1,688 85

*Acc't Water Service Cocks.*

Labor.....	\$ 54,159 77	
Sundries .....	207 16	
	<hr/>	54,366 93

*Acc't Water Meter and Private Works.*

Labor.....	\$ 66,034 14	
Meters, counters, covers and fittings .....	22,401 69	
Rebates on deposits.....	9,433 04	
Lumber .....	425 07	
Sundries .....	1,623 87	
	<hr/>	99,917 81

*Acc't Water Office Expense.*

Rent.....	\$ 1,278 32	
Cash Items .....	871 11	
Telephone Service .....	67 33	
Stationery, advertising, postage, car fare, etc .....	12,737 57	
	<hr/>	14,954 33

*Acc't Water Office Salaries.*

Collecting water rents assessed, inspectors, assessors and draughtsmen.....	221,351 38
---	------------

*Acc't Four-Mile Tunnel.*

Judgment and Interest .....	\$ 100,000 00	
A. Onderdonk.....	11,617 83	
	<hr/>	111,617 83
Carried forward.....		\$2,372,809 07



Brought forward.... \$2,372,809 07

*Acc't Western Ave. Tunnel.*

Labor.....	\$ 25,155 46	
Powder .....	1,323 56	
Repairing tools.....	317 80	
Sundries ....	582 41	
	<hr/>	27,379 23

*Acc't North Shore Inlet Extension.*

Labor.....	\$ 788 00	
Contractor .....	20,305 09	
	<hr/>	21,093 09

*Acc't Water Fund Proportion of Office Salaries and Expense.*

Labor.....	\$ 32,810 02	
Stationery, postage, annual report, etc.....	10,813 79	
Cash items .....	2,805 98	
Telephone service .....	96 39	
	<hr/>	46,526 18

*Other Expenses.*

Water loan interest .....	\$ 74,256 93	
Water loan certificates.....	1,168,185 00	
Hyde Park bonds.....	320,000 00	
Lake View bonds.....	69,000 00	
Refunding advances to lay water pipe.....	60,560 40	
Refund for hydrant wrenches,	442 00	
Refunding duplicate payments of water tax, etc. .	4,018 33	
Balance to credit of water fund, January 1, 1896 ....	133,299 83	
	<hr/>	1,829,762 55

Total expenses.....

\$4,297,570 12

## SEWER FUND.

## RECEIPTS.

Amount received from house drain permits.....	\$ 34,828 75	
Amount received from drain layers' licenses.....	2,095 00	
Amount appropriated by City Council for cleaning sewers and catch-basins .....	\$ 115,000 00	
Amount appropriated by City Council for repairing sewers and catch-basins	20,000 00	
Amount appropriated for sewer office salaries.....	27,810 00	
Amount appropriated for ex- tension of Fifty-sixth street sewer outlet .....	4,445 03	
Amount appropriated for ex- tension of Fifty-first street sewer outlet .....	498 00	
Amount appropriated for Sixty-ninth street sewer pump.....	9,400 00	
Amount appropriated for Woodlawn sewer pump...	8,500 00	
Amount appropriated for Seventieth street sewer pump .....	8,500 00	
Amount appropriated for Seventy-third street sewer pump .....	8,500 00	
Amount appropriated for Ninety-fourth street sewer pump .....	4,000 00	
	<hr/>	206,653 03
Carried forward .....	\$ 243,576 78	

Brought forward . . . .	\$ 243,576 78	
Amount received from private parties for labor and material . . . . .	7,404 96	
Received from special assessment for work and inspection . . . . .	130,796 38	
Total receipts . . . . .		<u>\$ 381,778 12</u>

## EXPENSES.

Sewers North Division . . . .	\$ 2,386 16
Sewers South Division . . . .	10,032 46
Sewers West Division . . . .	4,533 37
House drains . . . . .	31,225 47
Cleaning sewers and catch-basins . . . . .	134,424 44
Repairing sewers and catch-basins . . . . .	49,777 02
Intersections . . . . .	38,616 05
Sewer office expense . . . . .	760 46
Sewer office salaries . . . . .	27,819 28
Fifty-first and Fifty-sixth streets outlet . . . . .	4,944 78
Sewer stock account . . . . .	358 72
Salaries of inspectors (special assessment work) . . . .	41,423 49

## OTHER EXPENSES.

Sixty-ninth street sewer pump	7,851 12
Seventieth street sewer pump	6,966 56
Seventy-third street sewer pump . . . . .	6,326 62
Ninety-fifth street sewer pump . . . . .	5,277 42
Woodlawn sewer pump . . . .	9,026 24
Amount transferred to General Fund . . . . .	28 46
Total expenses . . . . .	<u>\$ 381,778 12</u>



## APPROPRIATION FUND.

## RECEIPTS.

*Acc't Improved Streets.*

Amount appropriated by City

Council ..... \$ 200,000 00

Other receipts ..... 28,198 66

---

\$ 228,198 66*Acc't Unimproved Streets.*

Amount appropriated by City

Council ..... \$ 150,000 00

Other receipts ..... 124 00

---

150,124 00*Acc't Scavenger Service.*

Amount appropriated by City

Council ..... \$ 335,000 00

Other receipts ..... 5,628 30

---

340,628 30*Acc't Cleaning Improved and  
Macadam Streets.*

Amount appropriated by City

Council ..... \$ 250,000 00

Amount appropriated by City

Council ..... 50,000 00

Other receipts ..... 37,012 88

---

337,012 88*Acc't Ward Inspectors.*

Amount appropriated by City

Council ..... 34,000 00

*Acc't Removal Dead Animals.*

Amount appropriated by City

Council ..... 37,500 00

---

Carried forward... \$1,127,463 84

Brought forward.....		\$1,127,463 84
<i>Acc't Street and Alley Clean- ing, Office Salaries.</i>		
Amount appropriated by City Council .....		9,400 00
<i>Acc't Sidewalk Repairs.</i>		
Amount appropriated by City Council .....	\$ 75,000 00	
Other receipts .....	1,473 39	
	<hr/>	76,473 39
<i>Acc't Public Buildings.</i>		
Amount appropriated by City Council.....	\$ 37,500 00	
Receipts from Public Library, etc.....	4,005 20	
	<hr/>	41,505 20
<i>Acc't Janitors' Salaries.</i>		
Amount appropriated by City Council.....	\$ 45,383 20	
Other receipts .....	1,710 00	
	<hr/>	47,093 20
<i>Acc't Bridge Telephone Opera- tors' Salary.</i>		
Amount appropriated by City Council .....		8,400 00
<i>Acc't Public Parks.</i>		
Amount appropriated by City Council.....	\$ 10,500 00	
Other receipts .....	20 00	
	<hr/>	10,520 00
<i>Acc't House Moving Permits.</i>		
Amount received from per- mits. ....		2,638 00
Carried forward.....		<hr/> \$1,323,491 63

Brought forward.....		\$1,323,491 63
----------------------	--	----------------

*Acc't Street Permits.*

Amount received for work on permits.....		72,997 70
---	--	-----------

*Acc't Special Assessments.*

Amount received from special assessment fund for cost of making and collecting special assessments, salaries and office expenses		238,833 45
--	--	------------

*Acc't Street Lamp Repairs.*

Amount appropriated by City Council .....	\$ 50,000 00	
Amount received from special assessments, gas company, judgments, etc.....	11,937 48	
	<hr/>	61,937 48

*Acc't Street Department Office Expense.*

Amount appropriated by City Council .....		1,500 00
---	--	----------

*Acc't City Engineer's Office Expense.*

Amount appropriated by City Council ....		750 00
--	--	--------

*Acc't Map Office Expense.*

Amount appropriated by City Council .....	\$ 800 00	
Other receipts .....	45 00	
	<hr/>	845 00

Carried forward.....		\$1,700,355 26
----------------------	--	----------------



Brought forward . . . .		\$1,700,355 26	
<i>Acc't Proportional Office Salaries.</i>			
Amount appropriated by City Council . . . . .	\$	13,930 00	
Other receipts . . . . .		4 60	
		<hr/>	13,934 60
<i>Acc't Street Office Salaries.</i>			
Amount appropriated by City Council . . . . .			15,630 00
<i>Acc't City Engineer's Office Salaries.</i>			
Amount appropriated by City Council . . . . .			12,400 00
<i>Acc't Proportional Office Expense.</i>			
Amount appropriated by City Council . . . . .			1,750 00
<i>Acc't Chicago Harbor.</i>			
Amount appropriated by City Council . . . . .	\$	48,390 00	
Other receipts . . . . .		86 40	
		<hr/>	48,476 40
<i>Acc't Street Opening and Obstruction Inspectors' Salaries.</i>			
Amount appropriated by City Council . . . . .			7,200 00
<i>Acc't Bridge Repairs.</i>			
Amount appropriated by City Council . . . . .	\$	115,000 00	
Other Receipts . . . . .		31,805 32	
		<hr/>	146,805 32
Carried forward . . . .			\$1,946,551 58

Brought forward . . . . .		\$1,946,551 58	
<i>Acc't Vessel Despatcher's Salary.</i>			
Amount appropriated by City Council . . . . .		2,250 00	
<i>Acc't Steam Roller Engineer's Salary.</i>			
Amount appropriated by City Council . . . . .	\$	1,800 00	
Amount received for use of steam roller . . . . .		510 25	
		<hr/>	2,310 25
<i>Acc't Bridge Tenders' Salaries.</i>			
Amount appropriated by City Council . . . . .		88,080 00	
<i>Fullerton Avenue Conduit.</i>			
Amount appropriated by City Council . . . . .	\$	14,755 00	
Other receipts . . . . .		74 99	
		<hr/>	14,829 99
<i>Acc't Canal Pump. Station.</i>			
Amount appropriated by City Council . . . . .	\$	62,880 00	
Other receipts . . . . .		451 88	
		<hr/>	63,331 88
<i>Acc't Van Buren Street Bridge and Viaduct.</i>			
Amount appropriated by City Council . . . . .	\$	35,477 30	
Other receipts . . . . .		11,524 18	
		<hr/>	47,001 48
<i>Acc't Fullerton Ave. Bridge.</i>			
Amount appropriated by City Council . . . . .	\$	10,000 00	
Other receipts . . . . .		18,000 00	
		<hr/>	28,000 00
Carried forward . . . . .		<hr/>	\$2,192,355 18

Brought forward . . . .	\$2,192,355 18	
<i>Acc't Special Deposits.</i>		
Amount received for inspection . . . . .	3,780 05	
<i>Acc't North Halsted Street Bridge.</i>		
Receipts . . . . .	1,000 00	
<i>Acc't South Halsted Street Bridge.</i>		
Amount appropriated by City Council . . . . .	50,000 00	
<i>Acc't Bridgeport Locks.</i>		
Amount appropriated by City Council . . . . .	12,800 00	
<i>Acc't Public Library.</i>		
Receipts for extras . . . . .	889 50	
<i>Acc't Street Privileges.</i>		
Receipts from Street Privileges . . . . .	2,986 00	
<i>Acc't Diversey Ave. Bridge.</i>		
Amount appropriated by City Council . . . . .	15,000 00	
<i>Acc't Street Intersections.</i>		
Amount appropriated by City Council . . . . .	1,000 00	
<i>Acc't Map Dept. Salary.</i>		
Amount appropriated by City Council . . . . .	15,840 00	
Total Receipts . . . . .		<u>\$2,295,650 73</u>



## EXPENSES.

*Acc't Improved Streets.*

Salaries .....	\$ 214,340 60	
Labor and material .....	1,506 63	
Lumber and blocks .....	20,180 14	
Crushed stone and gravel...	17,938 54	
Macadam .....	2,696 93	
Rent .....	3,800 55	
Electric light service .....	859 37	
Other expenses .....	6,349 13	
	<hr/>	\$ 267,671 89

*Acc't Unimproved Streets.*

Salaries .....	\$ 127,239 81	
Labor and material .....	9,052 25	
Lumber .....	2,569 07	
Crushed stone and gravel...	1,905 00	
Electric light service .....	1,443 78	
Other expenses .....	1,486 48	
	<hr/>	143,696 39

*Acc't Street Cleaning.*

Street cleaning by contract..	\$ 113,442 00	
Street cleaning by bureau...	150,757 43	
Rent .....	2,192 00	
Cash items .....	282 83	
Stationery, horseshoeing, car tickets, etc .....	4,609 51	
	<hr/>	271,283 77

*Acc't Garbage.*

Salaries .....	\$ 80,815 51	
Removal of garbage, ashes, etc .....	305,733 78	
	<hr/>	386,549 29

*Acc't Street and Alley Clean-  
ing, Office Salary.*

Office salaries .....	<hr/> 9,452 68	
Carried forward .....		\$1,078,654 02

Brought forward.....		\$1,078,654 02
<i>Acc't Ward Inspectors.</i>		
Ward inspectors.....		33,991 63
<i>Acc't Removal Dead Animals.</i>		
Removal Dead Animals ....		57,291 67
<i>Acc't Sidewalk Repairs.</i>		
Salaries .....	\$ 80,728 96	
Labor and material.....	10,838 03	
Lumber .....	14,159 87	
Other expenses .....	484 25	
		<hr/> 106,211 11
<i>Acc't City Hall.</i>		
Coal.....	\$ 21,335 36	
Repairing engines, boilers, etc.....	939 40	
Labor and material.....	3,333 05	
Repairing elevators.....	744 61	
Plumbing .....	196 46	
Decorating and cleaning ...	4,334 20	
Oil and packing.....	574 72	
Electric light service.....	826 67	
Other expenses.....	4,966 44	
		<hr/> 37,250 91
<i>Acc't Special Assessments.</i>		
Salaries of clerks, engineers, rodmen, etc.....	\$ 133,203 57	
Services as Commissioners..	18,286 84	
Clerk of County Court .....	19,154 05	
Real estate expert .....	11,665 16	
Advertising .....	3,397 87	
Legal services .....	14,468 16	
Printing, stationery, car-fare, etc .....	2,950 00	
Collecting special assess- ments.....	32,623 28	
Other expenses.....	3,084 52	
		<hr/> 238,833 45
Carried forward.....		\$1,552,232 79

Brought forward.....		\$1,552,282 79
<i>Acc't Chicago Harbor.</i>		
Salaries .....	\$ 13,158 32	
Dredging .....	46,478 54	
Other expenses.....	185 27	
		59,772 13
<i>Acc't Bridge Repairs.</i>		
Salaries .....	\$ 86,798 21	
Labor and material.....	16,339 98	
Lumber .....	22,274 43	
Coal.....	7,003 22	
Machine-work.....	3,115 01	
Steel rollers and castings ...	1,886 89	
Repairing boilers.....	527 26	
Electric light service .....	1,059 37	
Blocks ..	2,139 20	
Oil and paint.....	1,788 46	
Teaming .....	335 51	
Other expenses.....	5,668 74	
		148,936 28
<i>Acc't Canal Pump. Works.</i>		
Labor.....	\$ 29,101 67	
Coal .....	34,561 48	
Engine and boiler repairs...	7,301 03	
Oil and packing.....	2,075 59	
Smokeless furnace.....	750 00	
Brick .....	492 47	
Repairing tools.....	365 94	
Other expenses .....	3,703 42	
		78,353 60
<i>Acc't Fullerton Avenue Conduit.</i>		
Salaries.....	\$ 8,247 33	
Labor and material.....	3,687 15	
Coal.....	3,690 16	
Brick .....	316 15	
Gas.....	216 20	
Blocks .....	243 50	
Other expenses.....	653 76	
		17,054 25
Carried forward .....		\$1,856,349 05



Brought forward.....		\$1,856,349 05
<i>Acc't Public Parks—Washington Park.</i>		
Labor.....	\$ 3,027 64	
Trees .....	96 00	
Other expenses .....	98 48	
		3,222 12
<i>Acc't Aldine Square.</i>		
Labor....	\$ 866 18	
Plants .....	49 90	
Other expenses .....	30 05	
		946 13
<i>Acc't Douglas Monument Park.</i>		
Labor.....	\$ 938 00	
Other expenses .....	60 50	
		998 50
<i>Acc't Ellis Park.</i>		
Labor.....	\$ 893 50	
Other expenses.....	27 25	
		920 75
<i>Acc't Bickerdike Park.</i>		
Labor, etc .....		810 65
<i>Acc't Jefferson Park.</i>		
Labor, etc .....		168 70
<i>Acc't Green Bay Park.</i>		
Labor, etc. ....		422 80
<i>Acc't Oak Park.</i>		
Labor, etc.....		486 50
<i>Acc't Gross Park.</i>		
Labor, etc.....		436 25
<i>Acc't Shedd's Park.</i>		
Labor, etc.....		146 07
Carried forward .....		\$1,864,907 52

Brought forward.....		\$1,864,907 52	
<i>Acc't Lakewood Park.</i>			
Labor.....	\$	111 25	
Plants.....		45 00	
			156 25
<i>Acc't Congress Park.</i>			
Labor.....	\$	51 50	
Filling .....		499 00	
			550 50
<i>Acc't South Halsted Street Bridge.</i>			
Construction.....	\$	475 00	
Labor.....		1,148 97	
Coal .....		270 19	
Gas.....		136 60	
Repairs .....		199 90	
Sundries .....		423 16	
			2,653 82
<i>Acc't North Halsted Street Bridge.</i>			
Engineer services and other expenses .....			843 75
<i>Acc't Van Buren Street Bridge.</i>			
Construction.....	\$	23,637 47	
Salaries .....		4,123 65	
Electric conduit.....		5,107 44	
Machine work .....		1,073 99	
Copper cable .....		1,760 00	
Lumber .....		356 26	
Services real estate expert ..		300 00	
Sundries .....		442 59	
			36,801 40
<i>Acc't Street Lamp Repairs.</i>			
Labor .....	\$	29,839 90	
Repairing street lamps.....		16,474 68	
Glass and lamp fittings .....		13,875 11	
Other expenses.....		3,207 55	
			63,397 24
Carried forward .....			\$1,969,310 48

Brought forward.....		\$1,969,310 48	
<i>Acc't Steam Roller.</i>			
Labor.....	\$	1,804 14	
Repairing steam roller .....		155 22	
Sundries.....		45 25	
		<hr/>	1,804 61
<i>Acc't Bridgeport Lock.</i>			
Salaries .....	\$	9,298 28	
Labor and Material.....		2,855 06	
Dredging .....		2,000 00	
Lumber .....		376 57	
Pile Driving .....		135 46	
Sundries .....		162 28	
		<hr/>	14,827 65
<i>Acc't Fullerton Ave. Bridge.</i>			
Construction .....	\$	25,752 67	
Labor.....		744 00	
		<hr/>	26,496 67
<i>Acc't Diversey Ave. Bridge.</i>			
Labor, etc.....			1,433 99
<i>Acc't Street Permits.</i>			
Street Permits.....	\$	32,520 94	
Transferred.....		3,490 56	
		<hr/>	29,030 38
<i>Acc't Street Privileges.</i>			
Services, etc.....			400 84
<i>Acc't Salaries.</i>			
Janitors' salaries.....	\$	47,918 46	
Bridge Telephone Operators		6,311 32	
Vessel Despatchers.....		3,082 78	
House-moving Clerks.....		1,907 07	
Street office salary....		15,825 22	
City Engineer's office salary.		12,172 80	
Map Department salary.....		15,513 46	
Proportional office salary...		13,932 05	
Bridge 'Tenders' salary.....		86,457 77	
Public Library .....		889 50	
Street opening and obstruc-			
tion inspectors' salary....		7,128 77	
Deposit for inspection .....		2,694 50	
		<hr/>	213,833 70
Carried forward .....			\$2,257,138 32



Brought forward.....		\$2,257,138 32
<i>Acc't Miscellaneous Expenses.</i>		
Street Department, office expense .....	\$ 784 10	
Map Department expense ..	793 82	
Proportional office expense.	1,772 35	
City Engineer's office expense .....	723 93	
	<hr/>	4,074 20
Balance to credit, Public Parks, carried forward ...	\$ 1,264 78	
Balance to credit, Fullerton Ave. Bridge, carried forward.....	1,503 33	
Balance to credit, Diversey Ave. Bridge, carried forward.....	15,566 05	
Balance to credit, South Halsted St. Bridge.....	156 25	
Balance to credit, unpaid pay rolls .....	15,947 80	
	<hr/>	34,438 21

Total.....

\$2,295,650 1

## SPECIAL DEPOSIT FUND.

Balance carried forward from  
1894 .....

\$ 66,964 85

## RECEIPTS.

Suspense account.....  
Street permit depositors....  
Corporation account.....

\$ 7,100 85  
138,435 17  
70,076 01

Total receipts.....

\$ 282,576 88

## EXPENSES.

Hydrant wrenches. ....  
Suspense account.....  
Street Engineer's permit....  
Street permit depositors....  
Corporation account.....

\$ 228 76  
4,268 33  
3 00  
149,705 77  
52,199 19

Total expenses.....

206,405 05

Balance carried forward

\$ 76,171

## TRIAL BALANCE.

LEDGER, DEPARTMENT OF PUBLIC WORKS, CHICAGO,

DECEMBER 31, 1895.

	<i>Dr.</i>	<i>Cr.</i>
Water fund .....	\$ 133,299 83	
Water Works .....	23,912,837 85	
Water Works, income .....		\$38,952,654 69
Water fund, general taxes .....		2,713,878 53
Annexed territory .....		197,525 48
Water loan bonds, 6 per cent. ....		132,000 00
Water loan bonds, 4 per cent. ....		3,191,500 00
Water loan bonds, 3 $\frac{1}{10}$ % per cent. ....		332,000 00
Water loan bonds, 3 $\frac{1}{2}$ % per cent. ....		333,500 00
Water loan bonds, canceled .....		1,516,900 00
Water loan certificates, 5 per cent. ....		198,000 00
Water loan, interest .....	7,665,458 92	
Water loan bonds, Hyde Park 5 per cent.		50,000 00
Water loan bonds, Hyde Park 7 per cent.		9,000 00
Water loan bonds, Town of Lake 5 per cent .....		105,000 00
Water Works, expense and repair acc't.	16,500,262 81	
Water loan bonds, Lake View 4 per cent.		50,000 00
Water loan bonds, Lake View 5 per cent.		23,000 00
J. W. Lyons, cashier water office .....	2,000 00	
Meter Department, stock account. ....	8,113 50	
Water Works shop, stock account .....	16,699 50	
Tapping Department, stock account. ....	4,079 03	
Advances to lay water pipe .....		435,620 92
Hydrant wrenches .....		2,171 82
Annexed territory, sewers .....		2,614,224 75
Sewers constructed by Special Assessments .....		6,030,367 08
Sewers, North Division .....	2,728,914 28	
Sewers, South Division .....	6,866,778 16	
Sewers, West Division .....	6,991,482 18	
Carried forward ..	\$ 64,829,926 06	\$ 56,887,343 27

Brought forward.....	\$ 64,829,926 06	\$ 56,887,343 27
Sewerage loan bonds, 4 per cent.....		2,117,500 00
Sewerage loan bonds, 7 per cent.....		13,000 00
Sewerage loan bonds, 4½ per cent.....		489,500 00
Sewerage loan bonds canceled.....		380,000 00
Sewerage fund, general taxes and construction .....		4,933,532 48
Sewerage maintenance account.....		16,167 89
Sewer stock account .....	7,117 58	
Appropriation fund.....	30,938 17	
Public parks .....		1,264 78
Diversey Ave. bridge.....		13,566 01
Fullerton Ave. bridge.....		1,503 33
E. P. Fassett, cashier.....	1,500 00	
North Halsted street bridge.....		156 25
Unpaid pay rolls .....		15,947 80
Street lamp fund .....		94,049 13
Gas street lamps .....	16,864 67	
Gasoline street lamps.....	77,184 46	
Special deposit fund.....	76,171 83	
Suspense account .....		7,133 42
Street Engineers .....		134 00
Street permit depositors.....		33,896 83
Corporation account .....		22,576 21
Advances to construct sewers.....		12,431 37
	<u>\$ 65,039,702 77</u>	<u>\$ 65,039,702 77</u>

Respectfully submitted,

LOUIS E. GOSSELIN,  
*Book-keeper Dept. of Public Works.*

# INDEX.

---

	PAGE
Message of Mayor Swift .....	v
Officials of Department of Public Works .....	xli

## COMMISSIONER'S REPORT.

General Report .....	xlv
Appropriations, Expenses, Census, etc., 1888 to 1894, Table of....	lxi
Assessments Prepared.....	lxxiii
Bridge and Viaduct Maintenance .....	lvii
Bridge and Viaduct Work .....	lvi
Buildings Erected, Comparative Statement of.....	lxxii
Buildings Erected During 1895 .....	lxxi
Commerce, Lake.....	lviii
Contracts .....	lxiii
Electrical Inspection, Summary of .....	lxxvii
Electric Light System .....	lxxvi
Electric Light System, Summary of....	lxxvii
Financial Report .....	lxxviii
Growth of Chicago .....	l
House Moving.....	lxxii
Maps and Plats Made .....	lxii
Miscellaneous — Special Improvements .....	lxiii
Parks.....	lxxii
Pavement, Distribution of Kinds of .....	lxix
River and Harbor.....	lvii
Sewerage System, Extension and Total Cost of.....	lxix
Sewers .....	lxviii
Sewers, Maintenance of .....	lxviii
Sidewalks, Kinds and Miles of.....	lxx
Sidewalks, Miles Built During 1895.....	lxx
Special Assessment Bureau.....	li
Special Assessment Bureau, Expenses of, 1892 to 1895, inclusive..	lii
Special Assessments, Reduction in Amounts Assessed .....	liii
Street and Alley Improvements.....	liii



## COMMISSIONER'S REPORT—Continued.

	PAGE
Street and Alley Improvements, Financial Report.....	lix
Street Improvements During 1895.....	lxii
Street Lamps.....	lxxiv
Street Lighting, Electric.....	lxxvi
Street Lighting, Expense of.....	lxxv
Street Repairs.....	lxx
Water Meters and Hydraulic Elevators.....	lxvi
Water Office.....	lix
Water Pipe Laid.....	lxvi
Water Supply, New Land Tunnels.....	liv
Water Supply, Pumpage, 1895.....	liv
Water Supply—Tunnel and Crib Construction.....	lv
Water System Extension.....	lv, lxii
Water Supply System—Present Nominal Engine Capacity.....	lxv
Water Supply System—Present Nominal Tunnel Capacity.....	lxvi
Water Works, Bonded Debt of.....	lxxxiv
Water Works, Receipts and Expenditures, 1895.....	lxxx
Water Works, Total Cost to December 31, 1895.....	lxxxii
Water Works—Quantity of Water Pumped, with Total Revenue, from 1858 to 1895.....	lxvii

## BUREAU OF ENGINEERING.

Architectural Department.....	64
Barometer, Monthly Mean Pressure, Chicago, from 1873 to 1895.....	63
Bridge and Viaduct Construction.....	46
Bridge and Viaduct Maintenance.....	48
Commerce of Chicago from 1871 to 1895.....	54
Crib and Tunnel Construction.....	15-18
Cribs, Condition of.....	5
General Report.....	3
Harbor.....	51
Hydrants, Fire, in Use at Close of 1895.....	28
Hydrants, Fire, Placed During 1895.....	27
Precipitation, Daily, During 1895.....	59
Precipitation, Monthly, January, 1871, to December, 1895..	58
Pumpage, Monthly, in Gallons, 1895.....	11
Pumping Stations, Condition of.....	6
Pumping Stations, Operation of, During 1895.....	12
Pumping Stations, Comparative Operations of, During 1894 and 1895..	14
Sewerage Works, Main.....	65

## BUREAU OF ENGINEERING—Continued.

	PAGE
Shops, Output of.....	23
Stop Valves in Use at Close of 1895.....	29
Stop Valves Placed During 1895.....	28
Temperature, Table Showing Maximum, Minimum and Mean, for Each Day of Year 1895.....	60
Temperature, Mean, Monthly, Chicago, from 1871 to 1895.....	62
Vessels, Arrivals and Clearances of.....	53
Vessels, Movement of, and Operation of Bridges.....	55
Water Pipe in Use at Close of 1895.....	45
Water Pipe Extension.....	25
Water Pipe Extension, Detail of	
Calumet District.....	43
Hyde Park District.....	35
Jefferson District.....	41
Lake District.....	39
Lake View District.....	37
North Division.....	30
South Division.....	31
West Division.....	32
Recapitulation of Pipe Laid During 1895.....	44
Water Supply System.....	5
Water, Table Showing Maximum, Minimum and Mean, in Lake Mich- gan, from 1854 to 1895.....	57

## BUREAU OF WATER RATES.

Assessors' Increase and Decrease Checks, 1895.....	92
Assessments, Comparative Statement, 1894-1895.....	70
Buildings Examined.....	77
Expense Account, Detail of, 1895.....	122
Ferrules Inserted During 1895.....	79-80
Leak, Waste and Shut-off Force, Statement of Work Done by the, 1894.	78
Meter Department, Financial Report.....	86
Meter, Mechanical Department Report, 1895.....	89
Pay Rolls, 1895.....	91
Permits.....	81
Permit Department, Receipts and Expenditures, 1895.....	88
Pipe Let and Put In by Contract, 1895.....	82
Receipts, Miscellaneous, Detailed Statement.....	90
Superintendent's Report.....	69

## BUREAU OF MAPS.

	PAGE
Area of City of Chicago at Close of 1894.....	99
Streets and Alleys, Report of Length in Feet and Miles, January 1, 1896..	98
Work Performed. ....	97

## BUREAU OF SEWERS.

Catch-basins and Man-holes Raised to Grade, etc., 1895 .....	121
Catch-basins and Man-holes, Total Number, 1895.....	107
Expenditures of Sewer Department.....	103
House Drain Department, 1895, Statistics of.....	123
Sewerage System, Expenditure for Repairs of.....	121
Sewerage System, Total Cost of, from 1855 to 1896.....	109
Sewers and Catch-basins Built, 1895, and Cost of Same.....	107
Sewers and Catch-basins Cleaned, 1895, by Divisions.....	122
Sewers Constructed During 1894, by Divisions:	
North Division.....	116
South Division.....	114
West Division.....	112
Sewers Constructed During 1895, Size and Length, by Wards.....	108
Sewers, Length and Diameter, In Place December, 1895, by Wards...	110
Sewers, Wing, Constructed During 1895, by Divisions:	
North Division.....	120
South Division.....	119
West Division.....	118
Superintendent's Report.....	103

## BUREAU OF STREETS.

Financial Statement.....	127
House Moving.....	154
House Moving, Summary of .....	155
Lamp Department.....	157
Summary of Expenses, 1895.....	158
Lumber Used.....	149
Opening Streets, Permits for.....	153
Pavement, Distribution of Kinds of.....	145
Pavement, Total Amount Done by Years, 1855 to 1895.....	147
Paving, Average Cost of Various Kinds.....	128
Paving, Alleys Improved:	
North Division.....	130
South Division.....	134
West Division.....	140

**BUREAU OF STREETS—Continued.**

Paving, Streets Improved	104
North Division	104
South Division	105
West Division	105
Railroad Gates and Fences Erected in 1906	105
Repaving	106
Sidewalks	106
Sidewalks, Total Number of Miles of Under Control of City and South West and Lincoln Park Commissioners at Close of Year 1906	107
Street and Alley Improvement	108
Streets Improved during 1906, Summary of	111
Streets Improved, Total Miles of	113
Street Railways, Mileage and Power	161
Street Railways, Total Number Miles in Service December 31, 1906	161
Streets, Recapitulation by Townships, Showing Total Miles Improved and Unimproved, at Close of Year 1906	146
Unimproved Streets	150

**BUREAU OF STREET AND ALLEY CLEANING.**

Financial Statement	173
Removal of Garbage, Ashes, etc.	173
Street Cleaning	173
Superintendent's Report	173

**BUREAU OF SPECIAL ASSESSMENTS.**

Alleys, Assessments for Paving with	
Granite Block and Vitrified Brick	184
Wooden Blocks	183
Assessments for	
Drains	190
Lamp Posts, Boulevard	216
Lamp Posts, Gas	211
Lamp Posts, Gasoline	217
Sewers	195
Sidewalk, Cement	208
Sidewalk, Plank	201
Sidewalk, Stone	211
Streets and Alleys, Assessments for	
Curbing and Grading	185
Opening and Straightening	185



**BUREAU OF SPECIAL ASSESSMENTS—Continued.**

	PAGE
Streets, Assessments for Paving with	
Asphalt.....	180
Brick.....	182
Granite.....	182
Macadam.....	181
Wooden Blocks.....	178
Total Assessments for 1895, Recapitulation of.....	218
Total Assessments from 1861 to December 31, 1895.....	221
Water Supply Pipes, Assessments for.....	185
Water Service Pipes, Assessments for.....	193

**BOOK-KEEPER'S STATEMENT.**

Appropriation Fund.....	236
Sewer Fund.....	234
Special Deposit Fund.....	248
Street Permits.....	247
Water Fund.....	225
Trial Balance.....	249

---

**INDEX TO ILLUSTRATIONS.**


---

Portrait of Mayor Swift.....	Frontispiece
New Land Tunnel, Carroll Avenue Shaft.....	21
New Land Tunnel, Keith Street Shaft.....	21
Diversey Boulevard Bridge.....	lvi
North Shore Extension Tunnel, Intake Protection.....	lv
Hyde Park Crib-Protection Breakwater, Elevation.....	22
Hyde Park Crib-Protection Breakwater, Plan.....	22
Hyde Park Crib-Protection Breakwater, Cross-Section.....	22
Map of Tunnels and Pumping Stations.....	5
Lake View Tunnel, Alignment and Profile.....	15
Chicago Avenue Tunnel, Alignment and Profile (7-foot Tunnel).....	18
Fullerton Avenue Bridge, Plans.....	48
Diagram to Accompany Engineer's Report on Harbor, 1895.....	52
Diagram of Pumpage for 1895.....	10

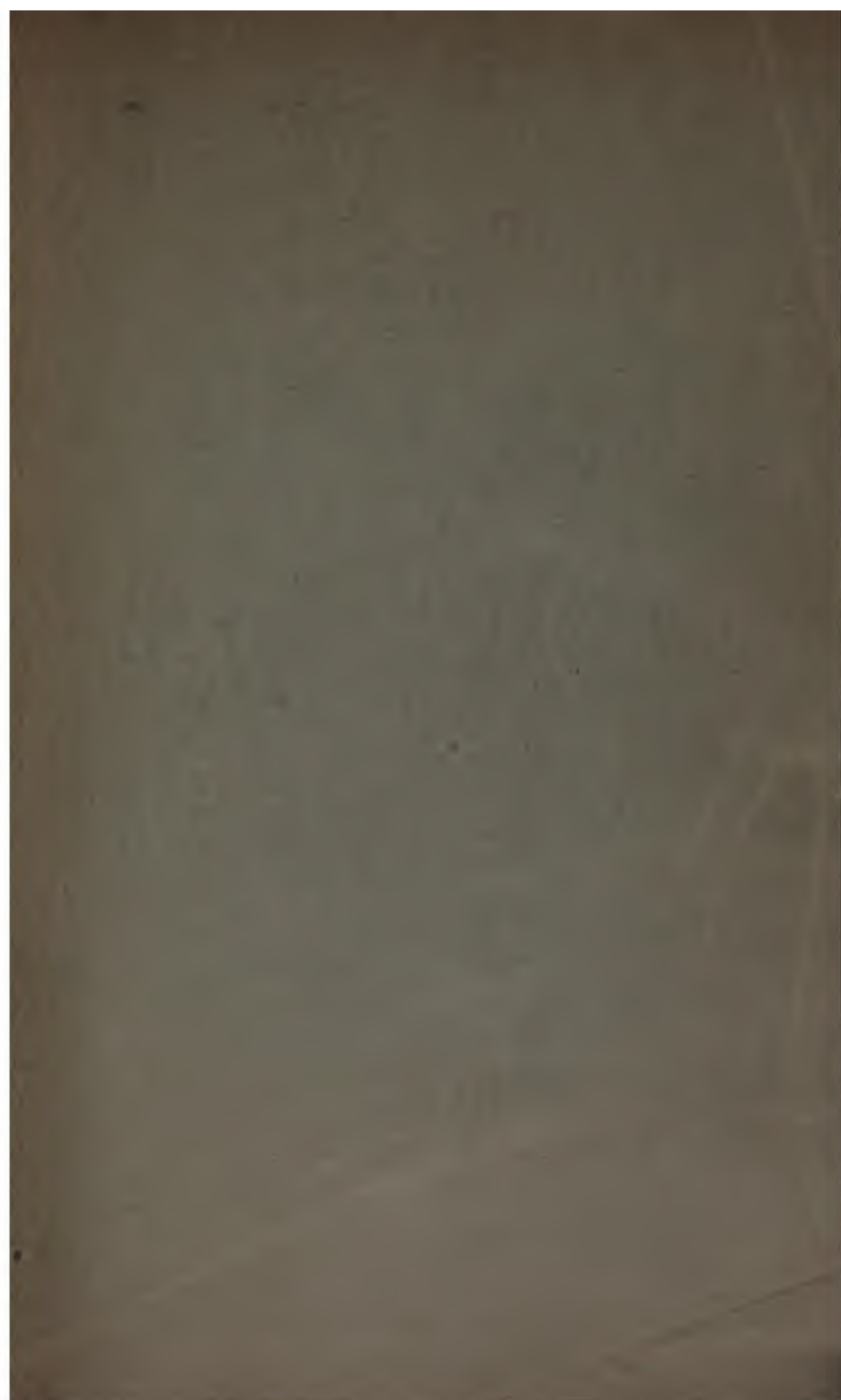


4





1













**This book is under no circumstances to be  
taken from the Building**

[illegible]

EDSIP 1A 194



